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Joint Committee Report on EXTENSION PROGRAMS POLICIES AND GOALS



Washington, D. C.
August 1948

U. S. DEPARTMENT OF AGRICULTURE
AND ASSOCIATION OF LAND-GRANT COLLEGES
AND UNIVERSITIES

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U. S. DEPARTMENT OF AGRICULTURE
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AND UNIVERSITIES

LETTER OF TRANSMITTAL

Washington, D. C., June 21, 1948.

To:

THE SECRETARY OF AGRICULTURE.

THE PRESIDENT OF THE ASSOCIATION OF LAND-GRANT
COLLEGES AND UNIVERSITIES

We submit herewith the report of the committee jointly appointed in October 1946 to study the policies and programs of the Cooperative Extension Service and to make recommendations thereon.

Respectfully,

JOHN A. HANNAH,

Chairman,

P. V. CARDON,

Vice Chairman.

EDMUND DE S. BRUNNER,

W. C. COFFEY.

H. L. DONOVAN.

J. R. HUTCHESON.

DAVID MEEKER.

W. A. MINOR.

H. P. RUSK.

THOMAS E. WILSON.

PREFACE

IN OCTOBER 1945 Secretary of Agriculture Clinton P. Anderson submitted a proposal to the president of the Association of Land-Grant Colleges and Universities suggesting that the Department and the Association establish a joint committee to study and make recommendations on the programs, policies, and goals of the Cooperative Extension Service. This proposal grew out of a study of the organization of the Department which was then taking place. In submitting the suggestion the Secretary stated, in part:

Many of the basic extension ideas, particularly with reference to organization, programs and procedures, were developed prior to and during the First World War. I feel that there are now a number of important basic problems in connection with the Cooperative Extension Service and its relationships with the Department of Agriculture that need careful study and re-evaluation. Some of these problems are fundamental to the effective cooperation of the Department of Agriculture and the land-grant colleges to attain maximum results in their joint efforts towards common goals. It seems to me that this is the time for both the colleges and the Department to appraise carefully the services and the experience of the Cooperative Extension Service for the past third of a century and to recommend broad extension policies, procedures and relationships.

The Secretary's proposal was considered by the Executive Committee and the executive body of the Association and was unanimously approved by both. After further consultations between the Secretary and leaders of the Association a joint committee was named in October 1946.

This committee was comprised of an equal number of individuals appointed by the Department and the Association. The membership of the committee was as follows:

Appointed by the Department:

Edmund de S. Brunner, Professor of Rural Sociology, Columbia University, New York.

P. V. Cardon, Special Assistant to the Chief, Bureau of Plant Industry, Soils, and Agricultural Engineering, United States Department of Agriculture.

David Meeker, Director of Education, Dearborn Motors Corporation, Detroit, Michigan.

W. A. Minor, Assistant to the Secretary, United States Department of Agriculture.

Thomas E. Wilson, Chairman of the Board, Wilson & Co., Chicago, Illinois.

Appointed by the land-grant colleges and universities:

Walter C. Coffey, President Emeritus, University of Minnesota.

Herman L. Donovan, President, University of Kentucky.

Roy M. Green,¹ President, Colorado Agricultural and Mechanical College.

John A. Hannah, President, Michigan State College.

John R. Hutcheson, Chancellor, Virginia Polytechnic Institute.

H. P. Rusk,² Dean and Director, College of Agriculture, University of Illinois.

President Green served as chairman of the committee until forced to resign on account of illness in December 1947. Dean Rusk succeeded President Green as a member of the committee and President Hannah was named chairman. P. V. Kepner of the United States Department of Agriculture served as executive secretary to the committee.

The committee held its organization meeting in February 1947. At that time Secretary Anderson and Dean Thomas P. Cooper, President of the Association, met with the committee and outlined the following general objectives of the study:

1. An appraisal of the services and experiences of the Cooperative Extension

¹ Deceased, January 22, 1948.

² From February 1948.

sion Service for past years, noting important changes.

2. A careful study of the important basic problems in connection with cooperative extension work, especially an appraisal of relationships with the United States Department of Agriculture and the land-grant colleges. This would include a review of past agreements and consideration of their applicability to present conditions.

3. Develop definite recommendations as to how the Cooperative Extension Service can best meet the problems of the future.

In pursuing its work the committee had access to voluminous official records pertaining to the Cooperative Extension Service. These included such materials as basic legislation and legislative history, official memoranda, financial and personnel records, extension annual reports and research reports. The study of such official records was supplemented by counselling with key officials of the Department and the colleges, and by interviews with representatives of other agencies and groups having an interest in cooperative extension work. Formal meetings of the committee were held at approximately bimonthly intervals from February 1947 to June 1948.

All those from whom the committee sought suggestions or counsel, or who volunteered to present viewpoints to the committee, were most generous in their cooperation and provided invaluable aids. Counsel was solicited and received through correspondence from the presidents of the land-grant colleges regarding (1) matters to which the committee should direct its attention and (2) the adequacy of existing formal memoranda between the Department and the colleges regarding cooperative relationships in conducting extension work. The heads of principal agencies of the Department presented to the committee their viewpoints pertaining to operating relation-

ships between these agencies and the extension service in the States. Also a number of State extension directors presented their viewpoints on the same subject by letters.

Representatives of Department agencies who conferred with the committee included:

- Dave Davidson,³ Assistant Administrator for Production, Production and Marketing Administration.
- I. W. Duggan, Governor, Farm Credit Administration.
- J. C. Dykes, Assistant Chief, Soil Conservation Service.
- S. C. Hughes, Assistant Administrator, Farmers Home Administration.
- R. E. McArdle, Assistant Chief, Forest Service.
- O. V. Wells, Chief, Bureau of Agricultural Economics.
- C. R. Wickard, Administrator, Rural Electrification Administration.

Also valuable to the committee was the counsel of the advisory committee of State extension directors, designated by the chairman of the Committee on Extension Organization and Policy of the Association at the request of the joint committee. This advisory committee met and counselled with the joint committee in June 1947 and again in April 1948. In addition they prepared certain materials at the request of the joint committee which were most helpful.

The members of the advisory committee were:

- H. C. Ransower, Chairman, Director of Extension, Ohio.
- A. E. Bowman, Director of Extension, Wyoming.
- J. E. Carrigan, Director of Extension, Vermont.
- I. O. Schaub, Director of Extension, North Carolina.
- H. C. Sanders,⁴ (1947) Director of Extension, Louisiana.
- J. O. Knapp,⁴ (1948) Director of Extension, West Virginia.

³ Deceased May 28, 1948.

⁴ Ex officio, as chairman of the Committee on Extension Organization and Policy of the Association of Land Grant Colleges and Universities.

M. L. Wilson,⁵ Director of Extension Work,
United States Department of Agriculture.

Others appearing before the committee included:

R. W. Gregory, Assistant Commissioner for
Vocational Education, U. S. Office of
Education.

John Davis, Secretary, National Council of
Farmer Cooperatives.

Edward A. O'Neal, President (1947),
American Farm Bureau Federation.

Allan B. Kline, President (1948), American
Farm Bureau Federation.

Albert S. Goss, Master, The National
Grange.

James G. Patton, President, Farmers Educational and Cooperative Union of America.

Kent Leavitt, President, National Association of Soil Conservation District Governing Officials.

Kermit Eby, Director of Education and Research, Congress of Industrial Organizations.

Guy L. Noble, Managing Director, National Committee on Boys and Girls Club Work.

The generous cooperation of all those indicated above, as well as others, has greatly facilitated this study. The committee hereby expresses its grateful appreciation of this assistance.

⁵ Ex officio.

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Accomplishments

Over a Third of a Century

SUMMARY— The primary function of the Cooperative Extension Service in agriculture and home economics is education. This Nation-wide extension service is performing this function in an ever-widening range of subject matter and with the aid of an increasing number of techniques. In reciting some of the contributions of this unique educational service to our national economy, we clearly recognize that the spectacular progress of American agriculture during recent decades is due to many factors, and credit cannot be attributed to any one agency. Some of the areas and ways in which this service has accomplished important results are: Counseling on farm problems; securing application of the findings of research on the whole range of farm operations from land use, soil treatment, crop and livestock production to better farm management and business methods, better homes and better farm and community living; working with rural youth; helping farmers solve problems through group action; mobilizing rural people to meet emergencies; developing an understanding of the economic and social factors affecting family living and agriculture in general.

Although the major part of extension programs has been directed toward rural people, the benefits have also extended to residents of urban areas. It is important to recognize that the application of scientific developments and the adoption of more efficient production methods and practices have always contributed to the general welfare. When farmers fail to adopt improved practices, both the farmer and the consuming public suffer.

A CASUAL examination of the program of the Cooperative Extension Service in almost any county in the Nation would reveal an extremely wide variety of activities. These activities touch the needs and interests of farmers, homemakers, and rural boys and girls, as well as of the community and the county as a whole.

Work with farmers include such things as increasing the productivity of

the land; conserving soil, water, and forest resources; improving rotations, farm crops, and livestock breeding and management practices; economizing in the use of labor; and promoting better marketing plans and procedures for all farm products.

The observer would see work with homemakers which assists them in performing more easily and effectively their many household duties; in pro-

viding more healthful meals for their families; in learning how to clothe their families more suitably and economically; in providing proper care for their children; and in organizing, conducting, and participating effectively in group activities.

The observer would also find a wide variety of 4-H Club and older youth activities designed to develop the agricultural, homemaking, and citizenship abilities of rural youth. Typical work would include responsibility for livestock and field crops production and marketing; soil, woodland, and wildlife conservation; home gardening; food preparation and serving; making and caring for clothing; and a score of other things. All would be supplemented by such group activities as camps, recreational events, tours, contests, exhibits, community-improvement projects, and discussion groups.

The observer would find these workers energetically cooperating with other groups. Thus, the county agent is likely to be an active leader in a local service club; possibly serving on a chamber of commerce committee; assisting to improve the rural churches of his county; and, with the home agent, helping in the study of local rural health problems and needs. The home agent might be leading a choral group of rural homemakers, serving as a member of the local business women's club, and collaborating closely with the county public health officials in their efforts to make their services to rural areas most effective. The 4-H Club agent or assistant agent for youth work in a typical county might be participating in many activities similar to those engaged in by the county agent and home agent. He or she is generally found working closely with county school officials, collaborating with church officials in their youth programs, and cooperating with local welfare workers. Where there are local or county committees on youth education,

these agents are generally leading members.

All of these activities, with scores of others and with variations, make up the programs of county extension agents throughout the land. The exact nature of the program in each county depends on what the local people want and what the local situation and needs justify.

This cooperative educational experiment is now a third of a century old. During that time the extension service has made great contributions to the development of agriculture and homemaking, and of rural life and living generally. Through these achievements it has also made a notable contribution to national welfare.

It is fully recognized that many other public and private agencies, organizations, and institutions have made significant contributions to the development and welfare of rural people. There has been close cooperation between extension and most of these other groups in striving for common objectives.

It is possible, however, to get some degree of statistical measure of the accomplishments of the extension service. These accomplishments have, in fact, been recorded over the years in annual State and national reports and in studies made by outside individuals. These reports record many different items, including the number of conferences held with individual farm people to discuss their particular problems; the number of meetings conducted; the number of publications distributed; the number of home demonstration, 4-H Club, and older youth projects completed; and so on through the hundreds of specific operations which farm people have engaged in through the leadership of extension.

There is no need to repeat those enumerations here. Furthermore, many of the most basic achievements are not subject to quantitative meas-

ure. Those achievements are seen in improvements made in fundamental areas of individual, family, and community life. The more fundamental contributions may, therefore, best be stated in qualitative terms. Among them are:

1. *Applying the Findings of Research.*—Through the use of demonstrations, individual counselling, group meetings, the printed page, and many other means, extension has helped rural people interpret the results of research and has shown them how to apply scientific information to farming and homemaking.

2. *Solving Problems through Group Action.*—Extension has helped rural people learn the value of an organized approach to those community problems which can be met most effectively through group action. It has demonstrated the valuable results to be achieved through cooperation.

For example, extension helped farmers to develop State seed-improvement associations, self-supporting soil-testing laboratories, dairy herd-improvement associations, and artificial-insemination cooperatives. Rural women have been aided in organizing community markets for the sale of home produce and handicraft, in improving community recreational, health, and library facilities, and in promoting community sanitation measures. Numerous other examples of effective group action, stimulated and guided by extension, could be cited.

3. *Understanding Economic and Social Factors.*—Through frequent meetings, group discussions, and co-operative activities, rural people have been encouraged by extension to become interested in, and better informed about, not only their individual and family affairs, but also matters of community, county, State, national, and international concern.

4. *Improving Family Diets.*—Through careful study and under-

standing of food values and the principles of nutrition, extension's home economics program has helped make it possible for homemakers to provide better diet, and, hence, improved health and happiness for their families.

5. *Improving Other Functions of the Homemaker.*—Through the effective work of home demonstration agents, extension has helped homemakers to understand how to save time and energy, how to clothe their families suitably and economically, how to furnish and decorate their homes in good taste and within their incomes, and how to develop attractive home surroundings. Such activities assist homemakers to develop confidence and pride in their contribution to family living.

6. *Work with Rural Youth.*—Through 4-H Clubs many millions of rural boys and girls over the years have found it possible to engage in organized group activities and to carry on projects related to farm, home, and community life. These activities have enabled club members to acquire useful information and develop skills valuable to them as future farmers or homemakers, to develop pride in farm life, to develop confidence in themselves, to acquire ability to make important decisions, and to learn how to work and play together.

In addition to 4-H Club activities, extension's expanding work with older rural youth is providing constructive educational experience for young men and women beyond 4-H Club age.

7. *Counselling on Farm Problems.*—The county extension offices are branch offices of the United States Department of Agriculture and the land-grant colleges. They are located close to the farms and homes of rural people. Extension continues to carry out its responsibility of helping farm people understand the various agricultural programs. In addition, its county offices

are looked to as the place where farm people can come with a broad range of problems and not only get counsel, but also information as to other agencies—State or Federal—which can give them needed assistance.

8. *Mobilizing Rural People to Meet Emergencies.*—Extension has demonstrated its effectiveness in quickly mobilizing rural sentiment, resources, and effort to meet local, State, and national emergencies of many types. This has been abundantly revealed in times of drought, flood, hurricanes, fires, ravages by insects and diseases, and the like. Similar effectiveness has been displayed in national economic emergencies when Extension leadership has been relied upon heavily to launch certain agricultural programs on a national basis while other means were being developed to assume the continuing responsibility. Notable, too, has been the contribution of extension during two world wars. In World War I extension was called upon to provide the leadership in rural areas in connection with practically all wartime programs directly affecting rural people. In World War II extension shared the responsibility, along with other agencies of the Department of Agriculture, in mobilizing agricultural resources. In addition, it operated a special wartime farm-labor recruitment and placement program.

9. *Contributing to the Science of Government and Education.*—The pattern of Federal, State, and local co-operation in developing programs adapted to local needs, which extension has worked out, has been of great value to the Nation in setting up other Government activities. Extension has also pioneered in adult education and has made many contributions in that field. For example, its system of volunteer local leaders has spread the teachings of each extension worker much further than would have been otherwise possible. Many foreign govern-

ments have studied and utilized aspects of extension's techniques and organization.

10. *Aiding Esthetic and Cultural Growth of Farm People.*—This has been achieved through the development of a greater appreciation of neat, attractive, and convenient homes; planning constructive recreational activities; the enriching experiences of camps; and the many other group activities which bring about a greater appreciation of such things as music and literature.

11. *Contributing to Urban Life.*—Extension has made many contributions—both direct and indirect—to the welfare of people in towns and cities. Urban residents are calling upon extension in increasing numbers for advice and services. Extension's work in improving the Nation's food supply, in conserving its soil, in spreading nutritional knowledge contributes to the welfare of the entire Nation. In addition, it should be remembered that roughly half of the boys and girls born and reared in rural communities go to urban centers to work and make their homes. The activity of extension in helping these young people develop initiative, leadership, and breadth of vision is also making a very real contribution to urban life.

12. *Developing Rural Leadership.*—Perhaps the greatest achievement of the extension service has been its contribution to the development of leadership capacity in rural people themselves. Extension seeks to help people help themselves. People themselves must act, must accept responsibility. They themselves must provide leadership essential to successful group activity. In so doing they develop confidence in themselves, learn how to discover and assemble facts on a broad variety of topics, learn how to get others to take responsibility, and how to plan for events both large and small. Thus, they develop the ability not only

to solve immediate problems, but to find solutions for larger and more difficult situations.

In short, whereas extension has done much for people, it

is what extension has helped people to do for themselves that achieves the greatest results.

Objectives and Scope

SUMMARY—Extension's early emphasis was on immediate problems of the farm and home. Improved practices which can be measured—which immediately bring better incomes or better living are gratifying to the people served and to extension workers. However, there is a danger that the broader function—helping people learn to help themselves—learning how to solve their own problems—may be overlooked. The latter objective should always be recognized as basic in extension work. In addition, extension has a growing obligation to help rural people understand the complex social and economic problems—local, national, and international—which confront them. The Smith-Lever Act clearly states that extension's field of educational responsibility extends to all the people of the United States. Hence, growing demands on extension from nonfarm rural residents and urban residents should be met as far as resources will permit.

THE major purpose of cooperative extension work is stated in the Smith-Lever Act of 1914, which authorized its establishment. That purpose is "to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same."

The words "useful" and "practical" characterized most of the educational work which was undertaken by agencies of the Department of Agriculture prior to 1914. They also characterized most of the work with farm people conducted by the several land-grant colleges in those days, although these institutions wove into their activities some educational efforts extending beyond specific operational problems of the farm and home. That is not surprising, for most of the factual information on problems of agriculture available in those days related pri-

marily to the basic science of producing crops and livestock. Much less knowledge was available relative to the science of home economics and relatively little in connection with some of the broader economic and social problems which vitally affect rural living.

Furthermore, the Cooperative Extension Service, in its beginning was faced with the necessity of recruiting and training a staff of field workers. And it was almost immediately called upon to lead a wartime drive for all-out food production. It was natural, therefore, that first efforts were concentrated upon assisting farm people with their quite specific and easily identified problems of the farm and home.

This was true in both adult and youth extension programs.

Efforts for more efficient farms, better homes, higher incomes and standards of living, increasing the technical knowledge of rural people—adult and

youth alike—continue to form the basic core of extension work today. The primary interests of rural people continue to warrant emphasis on such immediate objectives. But in more recent years there has been a growing appreciation that these objectives are only integral parts of a broader and more fundamental objective. That objective—as was indicated in the previous chapter—is the development of people themselves to the end that they, through their own initiative, may effectively identify and solve the various problems directly affecting their welfare.

Extension workers quite generally express this objective in terms of helping people to help themselves or helping people to attain, through their own initiative, a richer and more satisfying standard of living. These various expressions of the objectives of extension work clearly identify the function of extension as education. It is not education in the abstract, but education of a specific kind which will enable those served better to cope with the various problems encountered from day to day which affect their welfare.

Admittedly the current practical and specific accomplishments resulting from extension work, which can be measured in terms of improved practices or increased income, may be considered most realistic and satisfying by those with whom extension works. Where specific evidence of such practical accomplishments can be traced either directly or indirectly to the efforts of extension workers, they too derive great satisfaction. Therein lies a danger.

That danger is that extension workers may tend to confuse immediate and rather short-run aims and accomplishments with the ultimate and more important over-all objective. This danger is accentuated by the close association of extension with other governmentally and privately supported efforts directed to encouraging quite specific actions

by those with whom extension works. These circumstances should not be allowed to divert extension workers from their broad objectives of acting as an integrating force—helping rural people through education in solving the many interrelated and continually expanding problems which affect their lives. Toward that end extension should consciously and unfalteringly direct its total resources.

In undertaking to attain this end, extension has an obligation not only to individuals with their own particular problems, but also it has an obligation to foster group initiative in solving problems of common concern. Extension, therefore, should aid people in maintaining those institutions and measures essential to sound community progress. This means that extension is interested in all constructive community institutions and organizations and desires to cooperate with them in behalf of general community betterment.

Such action requires leadership from among the people themselves. One of extension's important functions is, then, discovering this potential leadership and encouraging its development.

Controlling Factors

Extension programs of work directed to the attainment of the above-stated objective must of necessity be developed within the limits of two major controlling factors. These are (1) the programs of the institutions of which extension is a part, namely, the United States Department of Agriculture and the land-grant colleges and universities, and (2) the needs and desires of all those whom extension is or should be serving.

In the formulation of extension programs in relation to the first point it is essential to seek integration with the institutional programs. But complete and effective integration requires, of course, clarity in the institutional

programs themselves and effectiveness in all their parts. Hence the parent institutions must chart a clearly defined course in which to exercise their respective roles of leadership, if extension is to be successful in the years ahead in meeting its total obligations and opportunities.

Such a course should lead unflinchingly toward a far horizon so as to challenge, as never before, the seasoned veterans in extension as well as the eager vision and energy of younger workers. On that horizon two focal points—the American farm and the American home—need always to be held in common perspective. They constitute a major bulwark of the American way of life.

But extension programs, however well conceived in relation to the programs of the parent institutions, cannot be assured of maximum productivity without alinement with the needs and desires of those to be served. There is no compulsion in extension education. The desire for assistance on the part of people must develop before an opportunity to serve is afforded. Extension's assistance must, therefore, be geared to problems which people recognize and to the discovery of unappreciated needs, or it will do no educational work at all.

But collectively these problems and interests encompass broad portions of human activity. A major problem facing extension forces at all times is, then, one of so distributing its available educational resources to the various problem and interest fields in such proportion that the maximum contribution may be made.

Responsibilities to Nonfarm Groups

Extension's responsibilities are not limited to farm people—or even to rural residents. Its obligation, as stated in the Smith-Lever Act, is to “the people of the United States * * * not

attending or resident in said colleges.” This obligation of disseminating the agricultural and home economics teachings of the colleges and the United States Department of Agriculture extends to all interested people in this country irrespective of their place of residence, their age, their group affiliation, race, creed, economic or social status, or other characteristics that might be used to draw lines of distinction.

Outstanding among the groups to which more thorough and well-planned extension assistance should rightfully be directed are (1) part-time farmers and noncommercial farmers, (2) urban workers maintaining homes in rural areas, (3) industrial groups, such as miners, living and working in rural communities, and (4) the residents of small towns and villages. The importance of rendering service to these latter groups is emphasized by the fact that in 1940 there were 24 out of the 48 States in which the rural non-farm population exceeded the farm population, as in 1947 it did in the Nation as a whole. There is every reason to believe that the proportion of rural residents who are nonfarmers is increasing and will continue to increase.

Greater demands for extension help are also being made by residents of cities. On the agricultural side these demands center around problems of commercial floriculture and horticulture as well as home and community gardening and landscaping. On the home side, chief interest lies in such problems as home management and furnishing, clothing, nutrition, health, efficient purchasing and wise use of food and other agricultural commodities. These are valid claims on extension and should be met insofar as resources are made available. However, as a matter of practical consideration, and in light of present resources, extension's major emphasis has been and should continue to be directed pri-

marily to serving the adults and youth of our farm and rural communities.

Subject-Matter Covered Is Also Expanding

Extension's job is not only growing vertically, in the number of people served; it is also growing horizontally, in the breadth of subject matter covered.

There is always a danger, in speaking of new problems which need attention, that the statement will be taken as a suggestion that old problems should be slighted. Quite the reverse is intended here. As has been said, the immediate problems of the farm, the home, and rural youth—including production of the necessities of life for all without destroying the basis of the Nation's food supply—should continue to constitute the basic core of extension work. That work needs to be continued with increasing vigor and effectiveness.

Nevertheless, more and more, public appreciation is developing of the interlocking interests of all groups of society in connection with many problems of fundamental significance to all. Most of these problems are not amenable to solution by individuals acting solely in their own behalf. They must be approached through group action. They vary all the way from problems of local concern, impeding the development of desirable community institutions and the most satisfying community life, to problems which are of major international concern.

On the community or county basis, the need for improved local health services, public school facilities, land use controls in some areas, and similar matters are typical of such problems. On the broader front are such questions as the most appropriate long time program for agriculture, tax policies and public indebtedness in relation to national welfare, the proper role of this country in helping to maintain in-

ternational stability and world peace, and many others.

All these involve human relationships, adjustments, and, in many instances, some compromise between the immediate interests of individuals and the longer time interests of specific groups and society as a whole. Rural people, as well as their neighbors in the urban areas, are seeking help in defining and solving many of these problems. The need is great. The opportunity for effective educational service is apparent. The challenge must be met.

True, these public-policy and human-relationship problems are less tangible and more controversial than most of the problems with which extension has traditionally dealt. But conclusions must and will be reached. Arriving at the best possible solutions is of basic importance to the farm and the home and in the interest of national welfare according to American ideals. Extension has a responsibility to render educational assistance in connection with such problems. This assistance should be rendered on the basis of presenting facts and alternative procedures fairly in the educational spirit of helpfulness. The course of action to be taken should be left with the individuals and groups, who will weigh the facts and possible alternative procedures and make decisions in the light of their own interests and in reference to the interests of their fellows.

Admittedly, information which would generally be accepted as reliable has not always been readily available in reference to many of these public-policy type of problems. Also, the nature of these problems does not permit the writing of specific curative prescriptions. However, research is expanding in these areas. This should make the educational task easier. But neither extension nor the public can wait on research to provide final answers to all problems. Many of them

must be met in some way, now. Neither do many of these problems stay solved—they have the habit of recurring constantly in some form. They demand continuing attention.

Extension, then, can render its greatest potential service if its educational program includes not only the more immediate income and technical prob-

lems of the farm and home which the family itself can solve, but also those problems which have to be approached through governmental or other group action. These two sets of factors constitute the warp and woof of the fabric of life. Neither without the other can be adapted to the pattern of national welfare.

Department-College Relationships in Connection With Extension Work

SUMMARY ⇐ The colleges and the U. S. Department of Agriculture were both authorized in 1862 and both given certain educational and research functions. The Smith-Lever Act of 1914 combined their forces in the Cooperative Extension Service to carry education to farmers. Since then functions of both the Department and the colleges have grown. Certain new functions require the Department to deal directly with farmers. Though all general educational functions belong to extension, the Department will continue to have to conduct certain activities in the States of semieducational nature. Regarding basic educational work in connection with departmental programs, where any State extension service cannot take over such work an agreement should be drawn up under which the Department will conduct it. The 1914 basic "Memorandum of Understanding" is still sound and in effect.

RECOMMENDATIONS

1. To keep mutually informed on new developments quarterly meetings should be held between representatives of the Department and the Association of Land-Grant Colleges and Universities.
2. Annual meetings should be held between the Secretary of Agriculture and appropriate committee of the Association.
3. The Department and the colleges should reach agreements on responsibilities *before* new Department programs are launched which involve education in the States.
4. Department agreements with other State agencies involving education should be worked out in conjunction with the colleges.
5. The Department and the colleges should give greater assistance in training State extension workers.

THE present relationships between the United States Department of Agriculture and the land-grant colleges and universities in connection with extension work has evolved through 34 years of coopera-

tion in this field. In order to understand and evaluate the present relationships it is necessary to have clearly in mind certain high points of this history.

Both institutions, the Department

and the colleges, were established in the same year—1862.

Although originally established to render somewhat different specific services, these institutions, throughout the intervening years, have had much in common. Each is dedicated to the same common purpose of rendering assistance to agriculture and those engaged in farming. Each has had educational functions from the beginning, although in somewhat different form. Each eventually engaged in extensive research on problems of mutual concern. Each was and is supported by public tax monies. The success of the programs of each is dependent to a large extent upon the active participation and support of the same rural people. A high degree of collaboration and integration of effort is therefore essential for maximum success.

Their Forces Combined in Extension Work

This is particularly true with regard to cooperative extension work. One of the major purposes of the Department from the beginning was that of rendering educational and informational services to rural people. The Enabling Act of 1862 states, in part: "There shall be at the seat of government a Department of Agriculture, the general design and duties of which shall be to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture, in the most general and comprehensive sense of that word." This means that education is one of the basic purposes of the Department. It is also, of course, the major purpose of the colleges.

As the body of scientific research information regarding agriculture increased in significance, both the Department and the State agricultural colleges undertook various measures to relay this information to farmers by more direct means than merely cor-

respondence and circulation of published materials. The Department's early efforts took the form of limited demonstrations on the control of plant diseases. The college efforts took the direction of participation in the educational programs of established agricultural societies and of farmers institutes. These developments grew and received such attention that a demand was created for more intensive on-the-farm educational services. The desirability of coordinating these two independent efforts into a single unified and expanded service was apparent. As a result the Congress passed the Smith-Lever Act in 1914 providing for cooperative extension work.

The purpose of this act is: "To provide for cooperative agricultural extension work between the agricultural colleges * * * and the United States Department of Agriculture." Recognizing the similarity of basic authorization to carry on educational work which was vested in each of these institutions and the need for unifying such work, the act further provides that "Agricultural extension work * * * shall be carried on in cooperation with the United States Department of Agriculture" and that "this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges receiving the benefits of this act."

The legislative history of the act reveals that the basic relationship between the Department of Agriculture and the State colleges, in conducting cooperative extension work, received rather specific consideration. Congressman Lever in reporting the bill to the House of Representatives stated:

* * * the principles involved are those of cooperation, the Federal Government aiding by advice and assistance in coordinating effort and the States performing the more important details of local work. This bill places the responsibility for the actual conduct of the work proposed in the

agricultural college and provides specifically for the adjustment of work to local conditions through a cooperative relationship established between the college of agriculture and the Secretary of Agriculture.

Senator Smith, in discussing various proposals as to administrative responsibility, varying from joint appointment of county agents by the Department and the colleges to a direct grant-in-aid to the colleges as under the Moerrill Act, stated:

The final result of the conference and study was the adoption of a middle course providing cooperation, with the power to supervise and approve the line of work by the Department of Agriculture, and leaving to the colleges the selection of the agents.

The viewpoint of the colleges regarding the bill under consideration was presented by President W. O. Thompson of Ohio State University, and then Chairman of the Executive Committee of the American Association of Agricultural Colleges and Experiment Stations, who stated:

It looks to us as if we should get closer together, with a better organization, a more efficient expenditure of money, and a better understanding than ever before. These colleges and stations are the places where the Federal Government has been pouring in money—for 50 years in the colleges and 25 years in the stations * * * the Federal control of its own money is an essential problem and a very practical situation. If any criticism could be made of Federal expenditures for 50 years in the colleges and stations, I should say that it should be directed against the lack of careful supervision of the expenditure of its money. * * * Now comes along the extension field, which admittedly is the largest area, and therefore the least subject to supervision, in which it is proposed that before the money is expended the Department of Agriculture, representing the Federal Government, and these colleges, representing the State governments, shall get together in a friendly council and lay out the projects, and provide, as far as human agencies can provide, for the wise, economical, and efficient expenditure of this money. Gentlemen, it seems to me that that feature of the bill is the wisest feature of the whole matter and ought to commend itself to State and Federal agencies alike. And so, speaking for the Association of Agricultural Colleges, I

should say without hesitation that that is a very desirable and wise feature.

These facts show beyond question that the extension work in the States was intended to be cooperative, that the Federal Government was to provide national leadership for the work, and was to have oversight and supervision of the expenditure of the Federal funds appropriated for it. It is also clear that plans for carrying on the work were to be developed cooperatively and that the actual carrying out of the work was to be the responsibility of the State extension services.

Memorandum of Agreement of 1914

In accordance with the viewpoints expressed above, representatives of the colleges and the Department jointly developed a memorandum of agreement detailing the part to be played by each institution in this cooperative endeavor of great mutual interest. This was approved by the Secretary of Agriculture and the Executive Committee of the American Association of Agricultural Colleges and Experiment Stations and subsequently was jointly signed and continued in effect in all but two of the States. This agreement is still in effect today and its principles have been generally followed in organizing and conducting cooperative extension work.

With respect to relationships, this agreement provides as follows:

1. The Agricultural college agrees:

(a) To organize and maintain at said college a definite and distinct administrative division for the management and conduct of extension work in agriculture and home economics, with a responsible leader selected by the college and satisfactory to the Department of Agriculture.

(b) To administer through such extension division thus organized any and all funds it has or may hereafter receive for such work from appropriations made by Congress or the State Legislature, by allot-

ment from its board of control, or from any other source.

(c) To cooperate with the United States Department of Agriculture in all extension work in agriculture or home economics which said Department is or shall be authorized by Congress to conduct in the State.

2. The United States Department of Agriculture agrees:

(a) To establish and maintain in the Department of Agriculture a State Relations Committee or a State Relations Service (now the Extension Service of the Department) which shall represent the Department in the general supervision of all cooperative extension work in agriculture and home economics in which the Department shall participate in the State, and shall have charge of the Department's business connected with the administration of all funds provided to the states under the Smith-Lever Act.

(b) To conduct in cooperation with the college all demonstration and other forms of extension work in agriculture and home economics which the Department is authorized by Congress to conduct in the State.

These provisions established the policy of making this Federal assistance in the field of education, adapted to the needs of the particular State, available to rural people in cooperation with State institutions, and administered by them through the Cooperative Extension Service.

The size of the extension program in its first years was exceedingly small in comparison with that of today. So was the program of the United States Department of Agriculture and the colleges. The Department's budget for 1915 was approximately 25 million dollars. The colleges in that year had only 2.1 million dollars of State and local money available for extension work. This combined with 1.5 million dollars of Federal funds made a total extension operating budget for that year of 3.6 million dollars.

In the third of a century which has elapsed since 1914 the pattern of agriculture has become infinitely more complex. Difficulties began to be recognized shortly after the close of the

first world war, which resulted in farmers demanding additional services and action by the Federal Government. As a consequence the responsibilities placed upon the Department by the Congress have been greatly expanded. This is indicated by the appropriation and loan authorization of 1,239 million dollars for work assigned to the Department by the Congress for the fiscal year 1948, as contrasted with the 25 million dollars available in 1915. Included now, in addition to programs designed for the acquiring and diffusing of useful information, are programs providing many services and performing functions designed to contribute to the welfare of farmers and the public. These programs are too well known to require listing here. The administration of such programs by the Department, as directed by Congress, has resulted in greatly expanded direct dealings between employees of the Department and individual farmers on a very broad front.

During this same period the land-grant colleges have also greatly expanded and their extension divisions have grown apace.

By the early 1930's when new agricultural programs were being established by Congress, the extension service had agents in over three-fourths of the counties. These agents had obtained the confidence of farmers and had developed the ability to organize farmers for action where circumstances required it. They were therefore relied upon very heavily by the Department for help in launching many of these newly authorized programs, and special funds were made available by the Department to enable the State extension services to provide such agents in all counties. In some States county extension agents were called upon to render services of an administrative or operational nature far beyond the scope of work envisaged by the Smith-Lever Act. At the same time all these programs required some educational

and informational efforts which were an appropriate responsibility of extension agents, as local representatives of both the colleges and the Department, in conducting educational work with rural people.

That the Cooperative Extension Service also experienced expansion during this period is reflected by its budget from all sources of 58.5 million dollars in 1948 as contrasted with 3.6 million in 1915.

Need for Clarifying Functions and Responsibilities of Different Agencies

Out of these circumstances some confusion and some misunderstandings developed between representatives of agencies of the Department working directly with farmers and extension representatives working with the same farmers. Perplexing questions arose as to the border lines between agency program administration and extension education. Most of these relationship problems could not be foreseen at the time of the 1914 agreement. In some instances questions have arisen as to the extent specific departmental programs were primarily educational, or what features were educational and what were noneducational in major respects. In some instances specific agreements, within the framework of the over-all memorandum, relative to particular agency program operations and extension responsibilities have been entered into between the Department and the colleges, or departmental agencies and the extension service, attempting to define appropriate relationships. To the extent uncertainties in regard to any of these matters prevail, inefficiencies may result and the total effective service to rural people may be lessened.

As has been indicated, by law, by agreement, and by common interpretation, the function of extension is that of education. The Smith-Lever Act

stated: "That Cooperative Agricultural Extension work shall consist of the giving of instruction and practical demonstrations in Agriculture and Home Economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise." A resolution of the Association of Land-Grant Colleges and Universities on this point recorded in November 1922 stated: "The wording and meaning of the above section is clear and definite. The work of county agents, home demonstration agents, boys and girls club agents, specialists, and other extension employees is strictly educational, since the act provides for the giving of instruction and practical demonstration."

The importance of this educational activity is such that, except in cases of extreme urgency, only basically educational functions should be assigned to the Cooperative Extension Service. Any other assignments tend to confuse and weaken the educational effort. All general educational programs of the Department should be carried to rural people through the Cooperative Extension Service.

The Department, on the other hand, has responsibilities placed upon it by the Congress which go beyond education. These include research, which does not require direct dealing with individual farmers in most instances. They also include the various operational-type programs previously mentioned which require a certain amount of informational or educational work and which constitute such an integral part of program operations that they cannot be practicably separated. Examples of such circumstances are the informational or educational work associated with the administration by the Department of production credit associations and other lending programs; marketing-quota and price-support

programs; regulatory activities; and others where the facts may not be quite so obvious. Even in connection with such programs there are general educational functions of a supporting nature which should be the responsibility of the Cooperative Extension Service. If, however, any State extension service is unable or unwilling to meet its responsibility for such work the Department is not relieved of its responsibility, under its mandate from Congress, for seeing that such work is done. In such instances a joint review of the attendant circumstances should be made and arrangements worked out between the Department and the State extension service involved whereby the Department would carry on such work. Such action should not weaken the cooperative relationship in other fields. Rather the development of such arrangements should strengthen the cooperative relationship through providing means to take care of exceptional circumstances.

It is inevitable that there will continue to be areas where programs of extension and other agencies border closely on each other, even though there is a minimum of duplication of effort. Were this not true there would be gaps left unfilled which might be equally troublesome. Since each program, to be effective, must reach individual farmers and influence their farm operations, this presents a problem of coordination. Through intelligent and earnest cooperation, appropriate lines of demarcation can be found.

The committee feels, therefore, despite any difficulties which may have been experienced in recent years in operating under the arrangements stipulated in the Memorandum of Understanding of 1914, that this memorandum is an adequate statement as to the basic partnership or cooperative relationships between the Department and the State colleges in the conduct of cooperative extension work. It is further believed that this

memorandum is fundamentally sound. When it is adhered to, all educational programs within the States for which the Department has a responsibility will be carried on through or in cooperation with the State colleges of agriculture.

It should be repeated, however, that many programs assigned to the Department involve definite action including enforcement of rules and regulations or compliance with rules and regulations by citizens who participate in or receive benefits from those programs. Obviously agencies responsible for conducting such programs must have authority to publish information about the programs and the basic facts regarding them, as well as authority to publish the rules and regulations involved and to explain their meaning. While the operating agency is primarily responsible for this type of information, the extension service is responsible for extending this information in appropriate ways. But the extension service must respect the responsibility of the operating agency for the rules and their interpretation and the facts on which they are based.

Suggestions for Improving Relationships

As a means of bringing about the closest cooperation it is recommended that the following steps be taken:

1. The Committee on Extension Organization and policy of the Association of Land-Grant Colleges and Universities should continue to meet with the Director of Extension Work in the Department at least every 3 months. At such meetings current developments in programs and relationships should be reviewed to the end that each may keep fully informed in these fields. The Director of Extension Work of the Department should bring to the committee developments in the Department programs or operations which are of interest to them.

Either immediately before or after such meetings with the Director of Extension work in the Department the Committee on Extension Organization and Policy should also meet with the proposed Department committee referred to in chapter V to discuss the current situation and any needed adjustments in programs or policies which should be given mutual consideration.

2. At least annually a duly authorized committee of the Association of Land-Grant Colleges and Universities and the Secretary of Agriculture should review developments and consider any program or relationship questions which are or may become problems. In such conferences (*a*) all programs and activities of the Department and the colleges which are of mutual concern and which involve educational activities within the States should be reviewed; and (*b*) all contemplated programs having these same characteristics should be reviewed in advance to establish a broad policy of cooperation between the Department and the colleges with respect to such programs. At an early meeting this group should review all existing detailed agreements between the Department, or any of its agencies, and the extension service, and in the light of such review jointly approve such agreements, revise them as necessary, or abrogate any that are not currently appropriate or effective.

3. In addition to such discussions on the national level, discussions are needed State by State between the Department and the colleges before any new program is launched by the Department which involves educational activity within the States. The Department and the colleges should make a sincere attempt to work out a mutually

satisfactory basis for carrying on such educational activities. If a particular State college in any instance is unable or unwilling to participate in any such program which the Congress has directed the Department to provide, the Department should proceed to carry out the program in that State without a cooperative arrangement with the college.

4. When any programs contemplated by the Department involve educational activities and require the cooperation of other State agencies, such as State departments of agriculture, State conservation commissions, and the like, the working out of satisfactory relationships with such agencies should be done in cooperation with the land-grant college. In those instances where the Department entered into working arrangements with such State agencies prior to 1914, the validity of such arrangements is recognized. It is believed, however, that the principle outlined should be observed in these instances insofar as circumstances make it feasible.

5. Arrangements should be made for research and technical workers in the Department and the colleges to assist in the training of extension workers, both in Washington and in the States. Through such means the effectiveness of both the research and technical workers and extension workers can be materially enhanced and the contribution of both multiplied. Such activity can greatly speed up the adoption of new approved practices.

To this end financial and other provisions should be made for carefully planned travel by State extension specialists and supervisors to other States and to Washington for appropriate conferences and demonstrations.

Extension Relations With Other Agencies and Groups

SUMMARY◀◀ Extension has and should continue to expand its effectiveness by working with organized groups and other agencies of Government. Relations with such groups and agencies have generally been excellent. However, some improvements are needed. Though close cooperation with general farm organizations is highly desirable, formal operating relationships with such organizations are considered detrimental to the public interest. The Department of Agriculture and the U. S. Office of Education should review their 1928 memorandum of understanding regarding relationships between extension and vocational Agriculture and home economics, to see if reported misunderstanding cannot be eliminated. Better cooperation is needed in certain Western States between extension and the Bureau of Reclamation regarding work with settlers of newly irrigated lands. For maximum service to rural people in the counties, all agencies and groups working in the field of agriculture should join together with farm people to build a county-wide program. Extension should take educational leadership in discussing such an approach. All agricultural agencies in each county should, where possible, be housed in the same building.

ONE of the lessons the extension service learned early in its history was that it could not rely solely upon county extension agents working directly with individual farm families if it was to accomplish all that was expected of it. This method was too slow. Or, putting it another way, there were too many farm families for the limited number of extension workers to assist each personally. Other methods had to be found or developed. In their efforts to find ways and means of effectively reaching more people extension workers soon learned the value of working with existing organized groups, or, where no appropriate organized group existed, of stimulating the formation of such. By this means

extension has been able to reach effectively many more people than otherwise would be possible. This technique also encourages local leadership, self reliance, and initiative on the part of those assisted.

Extension Encourages Group Action

In this process extension workers encouraged rural people to form organized groups. Home Demonstration and 4-H Clubs are examples of such groups whose basic function is education.

Others combine education with specific services. Examples of such are crop and livestock improvement as-

sociations, whose purposes are to promote the use of improved varieties of seeds and purebred livestock and to promote their distribution. Similarly extension workers have also given educational assistance in the formation of cooperatives where they seemed appropriate and desirable.

It is entirely proper for extension workers to conduct educational programs for such groups both in the process of organization and subsequent thereto. Such efforts should be restricted, however, to educational work and should not be allowed to extend into rendering a personal service to such groups. Such personal-service activities are inimical to the best interests of extension work. This fact was recognized early in extension history and in 1922 the Secretary of Agriculture issued a statement relative to such activities on the part of county agents. The key sentence in that statement is worthy of reemphasis here. It stated:

They (county agents) may not properly act as organizers for farmers' associations; conduct membership campaigns; solicit membership; edit organization publications; manage cooperative business enterprises; engage in commercial activities; act as financial or business agents; or take part in any of the work of farmers' organizations, or of an individual farmer, which is outside of their duties as defined by the law and by the approved projects governing their work.

That statement is sound and should be carefully observed by all extension workers.

**Relationships With General Farm Organizations*

Another type of farmers' organization with which extension work has been associated in one way or another over the years is the general farm organizations, such as the National Grange, the Farmers Educational and Cooperative Union of America, and the American Farm Bureau Federation. The first two of these general farm

organizations were established several years before the Cooperative Extension Service, and each functioned largely in different sections of the country. Generally speaking neither of these organizations has had a legal or organizational affiliation with the Extension Service as such. However, both have had a common interest with extension in desiring to improve the educational services for rural people.

The Farm Bureau, on the other hand, developed simultaneously with the Extension Service. In the beginning the purpose for which county farm bureaus were organized was to promote education for farm people through an extension service. Progressive farmers who desired the help of a trained agriculturist organized county farm bureaus to employ local agents and to assist them in the development of sound agricultural programs and in making technical information available to farmers. A strong impetus was given to the Farm Bureau movement by the passage of the Smith-Lever Act and by the fact that several State legislatures, in authorizing State participation in cooperative extension work, stipulated that county farm bureaus should or could be formed to serve as local groups to sponsor and direct extension work.

By 1920 a sufficient number of county farm bureaus had organized on a State basis to lead to the organization of the American Farm Bureau Federation. By this time, also, several State farm bureaus had developed commercial activities and, through the American Farm Bureau Federation, became quite active in promoting legislation in the interest of agriculture. These developments created a need for clarifying the relationship between the extension service as a public educational agency and the Farm Bureau as a rapidly developing private organization. In 1921 the Department of Agriculture and the American Farm Bureau Federation entered into an agreement

*Dissenting opinion to this section found on p. 23.

enunciating the policies to govern the relationships between extension and the Farm Bureau and defining the proper field of activity of county agricultural agents. This is known as the True-Howard Agreement. Wherever this agreement has been strictly adhered to no specific relationship difficulties have arisen.

However, despite the fact that this agreement restricted cooperative efforts of these two organizations to the promotion of the extension programs in the counties, and prohibited county agents from participating in other activities of the farm bureaus, criticisms continue to prevail. Other farm organizations feel that in those States where there is a cooperative arrangement between the farm bureaus and the county extension units, either by virtue of State law or by voluntary agreement, a situation is created which gives or appears to give an advantage to this one farm organization. Other farm organizations maintain that it is wrong in principle for a public agency such as the extension service to be identified in its operations, either legally or on a voluntary basis, with a private organization engaged in commercial activities or in influencing legislation. Other groups have expressed a similar concern and have stated that this association of the extension service with the Farm Bureau is detrimental to the welfare of agriculture and the extension service as well.

This committee is aware of the public service county farm bureaus have rendered in fostering extension work in many areas. It also appreciates the splendid support given extension work by State and county farm bureaus and the American Farm Bureau Federation. Such support is needed and desired—as is the support and interest of other organized groups of farmers. It recognizes, also, that there has been a definite trend toward the elimination of specific operating relationships be-

tween the two agencies. Today such relationships exist in only a few States, among which only seven States have laws which still require local sponsorship of extension work by an organization known as a county farm bureau. However, even if the operating relationships in States where they do prevail are of the finest, and are in accordance with the aforementioned agreement, it is recognized that other States feel the adverse reactions currently manifest regarding these relationships. They are somewhat detrimental to extension work in other States.

This committee expresses its conviction that it is not sound public policy for extension to give preferred service to any farm organization or to be in a position of being charged with such actions. The committee is further convinced that it would be in the public interest for any formal operating relationships between the Extension Service and any general farm organization such as the Farm Bureau to be discontinued at the earliest possible moment.

It is appreciated that this is a matter involved in the field of State rights. However, this committee is convinced that the best interests of extension work, the Farm Bureau, and farmers themselves will be served when all legal connections and exclusive operating arrangements between farm bureaus and the extension service are discontinued. It is recommended that extension service officials and Farm Bureau leaders in the States concerned take the initiative in this matter. The extension service can function most effectively only when it is recognized as a public agency available to and operating in the interests of all on an equal basis.

Extension Relations With Smith-Hughes Education

The breadth of extension activities brings extension workers into close association with many other govern-

mental and private agencies rendering a service to or working with rural people. Examples of such agencies are State departments of agriculture or bureaus of markets, the American Red Cross, bankers associations, commercial clubs, State departments of health, and State departments of education. In the main operating relationships between such agencies and the extension service have been worked out over the years on a mutually satisfactory basis. Where such is not the case, difficulties involved are usually of a local nature and must be solved on a local basis. A continued harmonious and effective working relationship between extension and such agencies is desirable in all activities of such agencies that have a bearing upon the welfare of rural people and in connection with which extension can make a contribution. The joint efforts thus developed can frequently make for a much greater contribution to the general welfare than can be expected from each group operating independently.

Close and harmonious operating relationships between extension workers and local teachers of vocational agriculture and home economics are particularly essential. Vocational education in these fields under the Smith-Hughes Act was inaugurated 3 years after the establishment of Smith-Lever extension work. Workers in both fields are public servants engaged in educational work many times both with the same individuals. And both services are maintained by public tax monies. By the very nature of the work each does, some possibility exists for overlapping of functions and misunderstandings between workers. Where such have developed they usually have centered around two fields: (1) Participation of rural youth in extension-sponsored 4-H Club work while the young people are at the same time engaged in supervised projects under vocational teachers, and (2) the dividing line between adult programs carried on under ex-

tension work and the systematic classroom work for adults as provided for under the Smith-Hughes Act.

In connection with the former, statements are made that in some instances rural youth enrolled in vocational classes are advised by their teachers not to join 4-H Clubs, even though different projects would be used in the supervised training under the vocational program and that of the 4-H Club; also that some county extension workers discourage 4-H members from enrolling in vocational classes. In connection with the adult work, statements are made to the effect that vocational teachers sometimes sponsor and direct activities in their communities which are not definite parts of systematic classroom work, thus overlapping the responsibilities of extension workers; or that county extension workers conduct training schools for adults on an organized basis comparable to vocational training classes.

Such statements are not only current but have been in evidence throughout most of the history of the two agencies. This committee has not had the facilities to investigate the validity of these statements. It feels that in most instances the operating relationships between extension forces and those of vocational education are quite satisfactory and in the public interest. However, in view of continual reports of State and local misunderstanding, the committee recommends (1) that the Department of Agriculture and the Federal Office of Education jointly review the 1928 Memorandum of Understanding relative to Smith-Hughes and Smith-Lever relationships and (2) that they take such steps as appear appropriate to insure that there is effective and harmonious integration of work under these two acts. Similar action should be taken by directors of extension and the directors of vocational education in each State.

In no event should duplication of functions or jurisdictional disputes be allowed to develop. It should be clearly understood that the job of the Co-operative Extension Service is to conduct its educational work through demonstrations, meetings, bulletins, radio, individual counseling, and other means. This involves work conducted on an out-of-school basis with adult men and women, older youth, and boys and girls 10 to 20 years of age. Vocational education, on the other hand, has the function of providing instruction to adults and youth meeting in regularly organized classes covering a definite period of systematic instruction. These distinctions should be carefully observed by both educational agencies.

Relations With the Bureau of Reclamation

In recent years there has been some evidence of an operational problem involving the extension services of some of the Western States and the Bureau of Reclamation of the Department of the Interior. The problem arises from an apparent Bureau policy of providing direct educational services to project settlers. These services duplicate a part of extension work. Hence extension must either withhold its program from such project settlers or be a party to a duplication of public services. If extension programs are withheld, these project settlers will be denied types of educational assistance available to other farm families in the area. This might also result in failure to integrate properly the agriculture of the Bureau of Reclamation projects into the agricultural program of the broader local area.

The situation, therefore, calls for full interagency cooperation, not alone in the public interest but particularly in the interest of settlers on the Bureau projects. Such cooperation should make it possible for settlers to receive

the same services as other farmers and in addition any special services required by the peculiar demands of irrigation agriculture.

Responsibility for Encouraging Coordinated Approach to Community Problems

During the past two decades there has been a substantial increase in the number of both public and private agencies and organizations working with rural people. Since the basic objectives and methods of these agencies and organizations are frequently similar, rural people have sometimes been uncertain as to what each agency and group was trying to accomplish and what the relationships were between them. Furthermore, the several agencies and organizations generally tend to work independently of each other when approaching farm and community problems, so local people have been inclined to view many of them as carrying on duplicative functions.

Experience in widely scattered counties representing all the major farm areas of the country strongly suggest that when agencies utilizing voluntary and democratic procedures find a way to coordinate their programs so that each makes its full and rightful contribution to the solution of rural problems, the following results become evident:

1. The agencies and local people jointly analyze needs and evolve plans for meeting them. These efforts utilize to the fullest the resources of the people themselves in meeting their needs and bring agency resources to the communities in a coordinated manner.
2. There is a much higher participation of the local people in agency programs.
3. Leadership responsibilities of both agency representatives and local people are more clearly defined.
4. The morale of both agency personnel and local leadership is high.
5. The people are better served.

We need only to look at the record to conclude that agency and organization

coordination and integration with local needs succeed best when it evolves voluntarily and democratically. To be sure, it may and should be facilitated by top agency and organization policy support, but the record seems clear that it cannot be done solely by enactment of legislation or issuance of directions.

Voluntary cooperation is greatly facilitated through having agency representatives located in close proximity. Consideration should be given, therefore, to housing all agricultural agencies in one building wherever such facilities can be provided.

Although the bringing about of agency and organization coordination and integrated working relationships with communities should not be the

sole charge of any one agency, certainly extension has, and should aggressively assume, responsibility for educational leadership in discussing the idea. Through informal methods, it should encourage the agencies and organizations at the county level to come together and explore ways and means for best developing systematic, cooperative programs, and unified working relationships with communities and families. Unless this is done, there will remain uncertainty and misunderstanding as to the responsibilities of the different groups. More important, the people will be deprived of maximum help in meeting a wide range of problems which can best be solved through unified approach.

Statement of Exception to Recommendation on Relations with Farm Organizations

I am in substantial accord with all but this section of the report. I do not agree with the majority of the committee that "... it would be in the public interest for any formal operating relationships between the extension service and any general farm organization to be discontinued at the earliest possible moment." I also disagree with the categorical statement that "formal operating relationships with such organizations are considered detrimental to the public interest." And I do not subscribe to the reasoning of the committee in support of these statements. I agree with the report that "close cooperation with general farm organizations is highly desirable" and I see no sound reason for prohibiting formal agreements clearly defining the joint and several responsibilities of the cooperating parties, their rights and limitations.

Denial of opportunity for farm organizations to participate in and contribute to the support of the Cooperative Extension Service in Agriculture and Home Economics violates one of the basic concepts underlying the enactment of the Smith-Lever law. The purpose of this legislation was to provide legal machinery for the cooperation of Federal, State, and local agencies in a program to help farmers help themselves. In carrying out this concept, some State legislatures required the establishment of county organizations to guarantee local sponsorship. In

many States where this was not compulsory, organizations were established bearing different names, such as crop improvement associations, soil improvement associations, farm bureaus, and other names, all on a voluntary basis. These organizations gave the extension service an anchorage at the local level and local support that in all fairness must be given credit for much of the success of the extension service.

The report recognizes the great value of local organizations to the extension service in these words: "By this means extension has been able to reach effectively many more people than otherwise would be possible. This technique also encourages local leadership, self-reliance, and initiative on the part of those assisted."

That an active, vital county educational program which "encourages local leadership, self reliance, and initiative" should attract the forward-looking farmers of the community was to be expected, and it was inevitable that when such men were banded together, their thinking would find expression in other than purely educational projects. In many States, these organizations have grown into strong corporate organizations. Through their many subsidiaries, they offer superior facilities for putting sound teachings into practice and for performing many other services for their members. The committee report recognizes the obligation

of the extension service to give educational assistance in the establishment of such co-operatives when it seems appropriate and desirable.

In my own State, county farm bureaus and county home bureaus, with which the extension service has formal operating agreements for local sponsorship of the educational program, contributed a total of \$582,997 toward the support of extension work last year. The agreements with these county organizations are drawn in such a way as to comply with the letter and spirit of the Smith-Lever law and are specific as to restrictions prescribed by the True-Howard agreement. These agreements with county organizations are strictly adhered to. The fact that sponsorship of a program of real worth to all farm people may have stimulated the interest of large numbers of men and women in these organizations is not a very good reason for believing that operating relationship with them is wrong in principle.

I believe that the provisions of the True-Howard agreement are sound and in the public interest and should be adhered to by all parties to operating agreements. I agree with the report that "Wherever this agreement has been strictly adhered to no specific relationship difficulties have arisen." I believe that it would be sound procedure when some specific relationship difficulty does arise to determine in what respect the True-Howard agreement has been violated and correct the situation rather than repudiate the agreement and the whole philosophy underlying it.

I believe that extension work cannot be of maximum effectiveness and influence without some type of cooperating organization at the local level. I also believe that the local organization that contributes to the financial support of this program is much more effective than the merely advisory organizations. I also believe that a dollar contributed locally, and spent under the scrutiny of the contributor, goes a lot further and has a much more wholesome psychological influence than a tax dollar collected from the same source after it has traveled to Washington and what is left of it comes back again.

I am a firm believer in grants-in-aid for many purposes, but I believe the principle of requiring those aided to make some contribution is sound in all such grants all along the line from international relationships, such as the European Recovery Program, to local educational programs. The only way such relationships can be safeguarded is by

formal agreements with responsible organizations. After all, the Federal Government extends countless of its programs by entering into agreements with both public and private agencies, and almost without exception public institutions accept private funds for educational and research work.

The test of public worth to be applied to any State extension service should be one of substance rather than one of form. It is not difficult to envision, on the one hand, a sterile extension service which has never committed the sin of entering into a formal agreement with any farm organization, and on the other hand an effective State extension service which has been goaded into great usefulness because it had such agreements.

I am not willing to accept the thesis of the majority of the committee that any formal agreement between the extension service and a general farm organization is *per se* undesirable. If any State extension service forsakes the spirit and purpose of the Smith-Lever Act and the True-Howard agreement to play favorites and indulge in political give-and-take, it will be because of something more fundamental than the presence or absence of a formal agreement with some one of its farm organizations. On the other hand, it is obvious that carefully drawn agreements, subscribed to in good faith and strictly adhered to, prevent deviations from sound procedures by all parties signatory thereto.

The categorical denial of the right of the extension service to make operating agreements with any general farm organization, such as a county farm bureau, jeopardizes the right to make such agreements with any other farm organization. The extension of this prohibition would hamstring the best work being done by land-grant institutions on better farm management, farm costs, and farm income. In my State, approximately 2,600 farmers, operating through the Farm Bureau-Farm Management Service and paying on an acreage basis, contributed more than \$100,000 to the support of these projects last year and furnished supervised farm records that are indispensable to effective research and extension work in this field. Discontinuance of operating agreements with farm organizations would disrupt important work in many land grant colleges and, in my opinion, the good that might conceivably come from such action would be outweighed many fold by the damage that would inevitably result.

H. P. RUSK.

The Extension Service Within the U. S. Department of Agriculture

SUMMARY◀ The Extension Service of the Department serves as a two-way connecting link between the State extension services and the Department and departmental agencies. It is also responsible for seeing that the Department's responsibilities under the Smith-Lever Act are carried out. This requires well-trained and highly qualified personnel. Recommendations:

(1) As rapidly as funds permit this office and each major research or service agency should jointly arrange for one or more persons whose functions would be to facilitate the flow of agency information to rural people through the extension service.

(2) The Director of Extension Work and responsible officers of these agencies should meet at least monthly in order that they may keep informed on developments of mutual concern.

(3) The Extension Service of the Department should provide leadership—but not direction—in the formulation of extension policy in the States.

THE Extension Service of the Department serves as a two-way connecting link between the Department and departmental agencies on the one hand, and the State cooperative extension services on the other. It is responsible for carrying out the Department's obligations under the Smith-Lever Act.

This involves a broad range of specific functions. It includes making available through the Cooperative Extension Service the results of research and investigations in agriculture and home economics to those who can put such information into practice; maintaining contacts with all agencies of the Department and coordinating the educational work of the Department with that of the cooperative extension services of the several States and Territories; securing necessary coordina-

tion in the educational field with other departments of the Federal Government, such as the Office of Education, the Public Health Service, and the like.

The responsibilities of this office also include providing strong, up-to-date leadership for the whole cooperative extension system; keeping State extension services informed of developments in programs and policies; aiding the States in developing effective and timely educational programs, studying the results of such programs, and in developing improved extension teaching techniques and procedures; also, helping to coordinate the educational activities of the several States as they relate to national or regional programs. In turn it provides the facilities through which the extension services

in the States channel matters to the attention of the Department.

As a staff officer for the Secretary, the Director of Extension Work is responsible for reviewing and approving annual budgets, extension projects, and annual plans of work, certifying the allocation of Federal funds for extension work to the individual States, and seeing that Federal funds are expended for the purposes for which they are provided and in accordance with prevailing legislative requirements.

This form of organization and operation within the Department has in general been mutually satisfactory to the Department and the colleges and should be continued.

The importance of this office is such as to require a strong staff. It should be recognized that it is necessary for the majority of workers to be in the upper classification grades and to be carefully selected on the basis of training and experience.

Extension Contacts With Other Department Agencies

The Extension Service of the Department does, and should, recognize the agencies responsible for research and service programs as the departmental authorities on subject matter. In carrying out its responsibility, the Extension Service needs to keep in close touch with all such agencies in the Department as well as groups or individuals responsible for policy formation if the two-way flow of information is to be kept at maximum efficiency.

It is recommended that the Extension Service, as rapidly as funds will permit, and jointly with the particular agencies involved, arrange for one or more selected individuals in each major research or farm service program field to serve as connecting links between the other Department agencies and the Extension Service. These representatives should be housed with

and actively be a part of the subject-matter agency. They should participate in and keep themselves fully informed of all activities which are or may become of value to the extension service in carrying out its responsibility to farm people. They should bring to the research or service agency suggestions as to problems encountered by the extension service or by farmers which may be given consideration by such agency. They should divide their time between field work and office work in proper proportion to accomplish most effectively the desired objectives.

It is recognized that much progress in this direction has already been made and that such cooperative employees are already working with a number of bureaus and agencies. However the committee feels that this work is so important that it needs major emphasis.

If this work is to be fully effective, the research and service agencies must make every reasonable effort to keep the extension cooperator fully informed as to their activities and contemplated activities. This is essential if information regarding improved practices, methods, and other pertinent information is to move from the Department to farmers with the least possible delay.

The Director's Contacts With Other Administrators

Through these cooperative employees and through other informal contacts, most of the needed day-to-day flow of information should be provided. But in addition, the Director of Extension Work, as the staff officer for the Secretary in carrying out the educational function of the Department, needs to have frequent contacts with policy-making officials in other agencies of the Department.

It is therefore recommended that there be established in the Department

a committee consisting of the Director of Extension Work, a responsible official of each principal agency of the Department providing information used by the Extension Service, and a responsible officer of each of those major operating programs which result in direct contacts with farmers. This committee should be under the chairmanship of a responsible official of the Secretary's immediate staff and should meet at least monthly. It should discuss developments in each field which are important to extension work. Any contemplated changes in any programs which affect extension work should, whenever practical, be presented for consideration before they are made. Where this is not practical they should be presented at the earliest possible time.

As pointed out in chapter III, these contacts should be supplemented by periodic meetings of the Director of Extension Work and other members of the Department with representatives of the Association of Land-Grant Colleges and Universities.

Aid in Making

Departmental Policy

The Director of Extension Work is a member of the Department's policy and program committee, which consists of the heads of the several Departmental agencies, with the Secretary as chairman. Through service on this committee and contacts with other in-

dividuals and groups, the Director can and does make very real contributions to the determination of Departmental policies as well as to the Department's recommendations to the Congress for improvements in basic agricultural legislation.

In short, the Extension Service of the Department should provide strong leadership for this cooperative system and aid in the development of the soundest and most effective programs possible. The programs of work of the several States, however, should be determined within the States and not by the Extension Service of the Department. The Department should cooperate with the State extension services in studying and analyzing the needs of rural people and in developing procedures which are most effective in accomplishing the objectives of the work. It should also continue to provide subject-matter information available from the Department and of value to the States and rural people.

The Director of Extension Work should continue to consider plans submitted by the States for work to be carried out through the use of Federal funds and to approve acceptable plans on behalf of the Secretary. With the relationships and organizations suggested, the Extension Service should be in a position to provide outstanding leadership and obtain facts and information needed by the State extension services.

VI

The Place of Extension in the Colleges

SUMMARY « Without full coordination of the three college functions—resident teaching, research and extension—extension cannot give maximum service. Extension must know what the experiment stations are doing in order to get their findings to farmers; the resident teaching staff trains the students from which extension draws its workers. On the other hand, the job which extension does—or fails to do—has a great influence on the attitude of the people of the States toward the research and academic work of the colleges. Though coordination has improved in recent years, more needs to be done.

RECOMMENDATIONS FOR BETTER COORDINATION

1. Responsibility for coordination of resident teaching, research and extension should be placed under one administrative head.
2. Each subject-matter program of the three should be combined into one department. Though other factors have to be considered, subject-matter departments can also be strengthened by housing workers in each subject-matter field together, and by appropriate cooperation in publications, in field testing of experimental findings, and in an occasional exchange of responsibilities.

EVEN if working relationships between the extension service and other agencies and groups outside the college were as near perfect as human characteristics would permit, extension could not render its maximum service without effective integration of effort within the colleges themselves. Each of the fields of college activity, resident teaching, research, and extension should be coordinated with the other. Such a situation has not always existed in all land-grant colleges and may not exist fully in some today.

Extension Not Always Fully Integrated With Other College Work

This possible lack of coordination may be accounted for in part by the fact that these activities were begun at different times. The resident-teaching work of the colleges preceded the establishment of cooperative extension work by half a century and was the beneficiary of the prestige associated with institutions providing higher education on a formalized basis. The experiment stations also antedated coop-

erative extension work by a quarter of a century. When extension was organized these stations were already rather firmly established as arms of the agricultural colleges and were providing the major part of the scientific information upon which classroom teaching was based.

All three of these activities were either launched, or given great impetus, in all States by Federal legislation and appropriations. In the case of extension work, however, there was one feature of the Federal enabling legislation which has tended in some instances to cause the extension branch of the college to be looked upon as something separate and apart. This is the provision referred to previously, that co-operative extension work "shall be carried on in cooperation with the United States Department of Agriculture" whereas the other two acts merely provided for grants-in-aid to the States.

Another possible factor in this lack of coordination was the Memorandum of Understanding of 1914. It provided that the agriculture college would "organize and maintain at said college a definite and distinct administrative division for the management and conduct of extension work in agriculture and home economics." Apparently this caused some to conclude that extension work was intended to be separated from other work of the colleges. They did not agree that the intent was to maintain extension's administrative identity in order to insure effective operation and clarity of purpose and function.

Furthermore, there was not unanimous agreement on the part of all college people at the time the Smith-Lever Act was passed that the type of extension work envisaged would be of such character as to warrant coordinate recognition with the other two major divisions of college work.

These circumstances, and others, caused the administrators of the colleges in some instances to consider ex-

tension as something separate and somewhat apart from the rest of the institution's work. Extension work in such instances was not always accorded the same recognition in relation to institutional responsibilities, and did not receive the same degree of administrative attention, as teaching and research work.

As a result the programs which extension carried on were not always effectively integrated with the work of the other divisions. Where such circumstances prevailed, and extension grew and became recognized by virtue of its more or less independent efforts, there developed some resistance on the part of extension to sacrifice any of its apparent independence. This weakness in internal organization of the colleges, and its adverse effects on extension work, was specifically noted in the comprehensive study of the land-grant colleges and universities inaugurated in 1927. In too many instances, as the report of that study pointed out, there was not a full recognition that extension could become the major bond which gave the people of the States an interest in the colleges and experiment stations.

More Effective Integration in Recent Years

Fortunately this need for integration has been more fully recognized in recent years. Efforts have been made in practically all land-grant colleges to strengthen the operating relationships between their three major divisions. This is most desirable and necessary and has particular significance not only to extension, but also to the colleges as a whole. However, additional progress is still needed. There are still organizational and operational problems within the States of great significance to extension that are worthy of careful consideration by extension and college administrators.

It is recognized that there is no one perfect organizational and operational plan that can be applied to all States uniformly. Circumstances surrounding and within the various land-grant colleges differ too widely to make this feasible. For instance, these institutions vary widely in size, in resources, and, in turn, in breadth of work which it is possible for them to undertake. Some of the colleges are separate State institutions while others are units of large universities or university systems.

As one indicator of these variations, the smallest agriculture and home economics extension staff maintained by a land-grant college in 1948 (Alaska) included only 8 professional extension workers, whereas the largest (Texas) had 709. Alaska's total extension budget in the same year amounted to \$48,950; that of Texas amounted to \$3,042,010. Similar wide variations exist in the teaching and research facilities of the various institutions. Under these circumstances different internal administrative and organizational arrangements are appropriate. However, there are certain general principles which, if observed, should strengthen these institutions in their entirety and should add materially to the effectiveness of their extension work.

Administration Principles Contributing to Most Effective Work

The first has already been stressed: in order to render the maximum service possible the work of all three divisions of the college must be effectively coordinated with each division supplementing and buttressing the efforts of the other. All must work together harmoniously as members of one team with a common objective but with related fields of specialization.

The reasons for this are readily apparent. The Extension Service is vitally concerned with the research done by the State experiment station. This is

a major source of the facts which are taught in extension's educational program. Close and effective liaison between extension workers and research workers is necessary at all times. This is essential to insure that important new research findings may be relayed effectively, and without loss of valuable time, to those who can use these facts in their day-to-day activities. Extension is also vitally interested in the resident-teaching work done at the college, since the colleges supply the major source of extension's personnel. The adequacy of the training offered by the colleges is in part a predeterminant of the quality of personnel available to fill extension positions.

In turn, both research and teaching units are, and should be, concerned with both the quality and nature of work done by extension. Extension agents are field representatives of the college. They are engaged in relaying the appropriate scientific information, determined by research and taught in the college classroom, out to the people of the State, on their farms and in their homes.

They are also in a position to build good will for the college and for the experiment station, and to relay to the experiment station practical problems facing farmers which would seem to call for additional research.

There is then a unity of interest which should command the greatest possible integration of effort. At the same time, there is a unique contribution to be made by each of the three major divisions of the college of sufficient importance to warrant comparable administrative attention and support. Each is, and should be, on a par with the others, with the work of all so integrated as to result in the maximum service to the people of the State. If this is done maximum benefits will accrue to the colleges themselves.

The second principle which the committee would emphasize is this: effective integration of effort can best

be obtained through placing administrative direction of these three individual but related functions of the college in one person. That person should be someone who can give a large portion—if not all—of his time to this important function. Though each function—teaching, research, and extension—may well have separate administrators all three should be responsible to one person, such as a dean, or other authoritative head. This is a fundamental of good administration. Such an arrangement has the advantage of centralized administrative authority and coordinated efforts, while, at the same time, permitting operational responsibilities to be vested in a separate designated head of each line of work. By this kind of arrangement the specialization essential to the most effective work in each division is assured. But whatever the administrative device used, it is essential that effective administrative coordination be attained.

The third principle is that the subject-matter programs of the three divisions must be coordinated if economy, efficiency, and teamwork are to be obtained. This can best be done through combining all three lines of work into a single subject-matter department. For example, the agronomists in extension and in the experiment stations, as well as those on the teaching staff, should be members of the department of agronomy or of whatever department includes this work. From extension's standpoint this type of arrangement does not diffuse responsibility for overall extension planning and specific field operations. That responsibility remains with the extension director. However, it does provide a natural mechanism for consultation regarding extension-program emphasis and content within the various departments and between the extension administrators and department heads. It also tends to keep the latter familiar with the extension field work being done at all times and

needs for additional work in both the research and extension fields.

Other Helpful Administrative Techniques

There are other administrative techniques of somewhat lesser significance which can contribute materially to coordination of effort and most effective work. Among these is the matter of arranging for the teaching, research, and extension staff members in a specific subject-matter department to have their offices together. In some instances the inadequacy of college buildings may make this difficult. Likewise such an arrangement may run counter to the belief of some that it is more important to have all extension workers located in close proximity. The committee recognizes the necessity for employing every means to insure unanimity of purpose and procedure within the ranks of extension itself. But it feels that strong subject-matter departments, and close affiliation between subject-matter extension workers and these departments, are so essential to success in all three lines of college work that every practical measure should be employed to insure that the three related groups operate as a unit.

Other measures that can appropriately be employed in attaining this goal are regularly scheduled departmental staff meetings involving all three classes of workers; definite arrangements for extension workers to report to the departmental staff on problems encountered in their field work which would seem to warrant additional research work; joint extension and research staff planning and conducting field demonstrations; and, joint field tests, under actual farming conditions, of laboratory and test-plot findings.

Definite arrangements as to the several and joint responsibilities of the

three different groups of workers in the release of technical-research reports, related extension teaching publications, press and radio releases, and the like, are also most helpful in insuring efficient operations. Likewise arrangements for the occasional interchange of responsibilities as between individual workers in the resident

teaching, research, and extension fields is recommended wherever practicable.

All of these measures are in use to a greater or lesser degree in the individual colleges at the present time. The committee feels, however, that these measures are worthy of consideration by all appropriate college administrators in their efforts to strengthen their services to the people.

Extension Teaching Methods and Procedures

SUMMARY <<< The wide differences among farm people and their problems demand a wide variety of teaching methods. Individual counselling and demonstration are still important, but have definite limitations. With improved transportation, meetings should and are being more frequently used. Discussion groups are excellent for public-affairs education as well as for attacking local problems. Bulletins and other informational media—particularly radio—are of increasing importance. The average county extension agent must serve from 1,000 to 1,500 farm families plus many nonfarm residents. The pressure of work demands greater emphasis on democratic program planning and on the use of local leaders. Subject-matter specialists are of great value to extension work but the specialized approach can be overemphasized. There is a need for a greater emphasis on the *totality* of the activities of each farm and farm home, and hence on informed “generalists.” Too much emphasis on “projects,” may also be incompatible with this unified approach. Scientific evaluation of extension methods and procedures needs expanded emphasis.

EXTENSION education is not an academic exercise but is education for use now. It involves work with people who differ in age, educational status, in interests, levels of living, culture, values, and other variables. It involves education on the farms, in the homes, the community meeting place, in the extension worker's office, at other points, and under varying circumstances. Decision as to whether or not the services available will be utilized, and to what extent, rests solely with those to be served. Under these circumstances the productivity of extension education is determined by the merits of the services offered, including effectiveness of the teaching methods used.

It is clear, therefore, that there is no one extension teaching method which will meet all needs. Rather it is essential that a wide variety of methods be employed. Extension research reveals that even in a well-defined situation the utilization of several different teaching methods has a cumulative effect. It is necessary, therefore, for the extension worker to be proficient in the selection and use of those teaching methods best suited to a particular situation.

Teaching Methods

Out of a third of a century of experience extension workers have developed and tested out a number of

teaching methods adaptable to the circumstances under which extension must work. A few of the major methods utilized are considered briefly below.

Individual Counsel.—The farm and home visit was one of the early and effective methods used by extension workers. In such personal consultations, where specific problems can be analyzed and counsel given, the educational results obtained are quite evident and gratifying. A real contribution is made to the particular individuals so aided. The same can be said relative to counsel given to individuals regarding specific problems when they seek the assistance of the extension worker in visits to his or her office, or by telephone call, or letter.

However, this pattern of counseling individuals with regard to specific detailed problems is time-consuming. Educational programs conducted in this manner are necessarily restricted in scope and benefit a limited number of people. Despite its merits other methods must be employed in order to maximize the total effectiveness of the available extension personnel.

Demonstrations.—The demonstration method is one which has been used effectively by extension throughout its history. This procedure is peculiarly suited to teaching farm and home "practices" and the results which can reasonably be expected from the adoption of a new operational technique or practice. This method should continue to be employed whenever the occasion warrants. However, it is not suited to all educational needs. Likewise there is evidence that with advancing educational status, and growing confidence in the soundness of extension recommendations, there may be less necessity for the employment of this teaching technique, at least in disadvantaged situations.

Meetings.—In recent years, with improved local transportation facilities, there has been a growing tendency to

utilize group meetings as a means of conducting extension work. This would appear to be a logical development. Such meetings lend themselves to a wide variety of purposes such as method demonstrations, leader training schools, discussions of public affairs, and study courses.

However, certain precautions as to the use of this teaching method seem worthy of consideration. A certain degree of selectivity may result when this method of developing a teaching situation is used. This selectivity may be on the basis of educational status where the less well educated are less likely to attend. The location of centers where such meetings are held may make them less appealing to some than to others, either on account of travel distance involved, or the location of the specific meeting place in relation to the natural community center. Likewise when such meetings are planned on a commodity basis, as is done in many States and counties, they may attract primarily the larger producers of the commodities being considered. Such commodity centered meetings likewise may not encompass nearly all of the problems common to the welfare of all, some of which do not lend themselves to consideration through the commodity approach. The potency of requests from organized commodity groups for special consideration is recognized. However, it is equally well recognized that undue reliance on this approach in arranging educational meetings can easily interfere with maximum coverage of a county with educational programs, and in relation to all problems deserving of attention.

Discussion Groups.—In the last 15 years increasing use has been made of discussion groups. Meetings of this sort are especially useful in dealing with some of the newer aspects of the extension program such as public affairs. They permit an exchange of views, and a pooling of information. There are definite techniques of discussion which

have to be mastered to obtain best results. Essential to successful discussion in most cases is the presence of an informed resource person or the availability of impartial materials which raise questions and present all sides of the question under consideration. Leading and helpful materials relative to these techniques have been prepared by the Federal office and some of the States.

Bulletins.—Extension research reveals that bulletins, circulars, leaflets, and other published teaching devices rank very high among the various extension teaching methods. Bulletins are usually mailed only on the request of individuals or they are picked up at the county extension offices. Several hundred thousand of these bulletins are distributed in the average State each year. As the educational level of people rises this device should become even more influential in extension educational efforts.

This will be particularly true if the recent trend is continued to develop popular type bulletins with a readability level more consistent with the reading ability of those for whom the bulletins are intended. The committee commends the excellent work which has been done recently in this field by the Federal extension office and by several of the State extension services. It recommends that all States give careful and continuing attention to improving the readability of their bulletins.

Other Informational Media.—In addition to bulletins and other pamphlets the extension service utilizes news stories and regular columns by extension agents in local papers, exhibits, posters, circular letters, and the radio. Several State colleges of agriculture maintain their own radio stations. Others have time allotted to them by commercial stations. Hundreds of county extension workers utilize radio facilities in their counties to conduct educational work, usually on a definite

schedule basis. All of these methods are valuable and have a place in an effective extension program.

As has been noted, the interest being evinced by rural people in a wide range of problems emphasizes the need for extension to employ every method at its disposal for conducting educational work. The increasing demands for help from extension places a corresponding restriction on the amount of detailed personal educational work that can be offered because of time limitation. There is, therefore, need for more careful appraisal of the effectiveness with which various types of meetings and other teaching methods are and may be used. However, no hard and fast rules can be laid down. The best educational methods for extension are those which fit the subject matter to be taught; which take into account the educational and economic situation of the people, as well as their cultural practices; and which will reach effectively the largest number.

Operational Procedures

The usual titles used for county workers—agricultural agents, home demonstration agents, and 4-H Club agents—indicate that each group specializes in one general type of educational program. However, their work in any county is not mutually exclusive. Increasingly, efforts are being directed to organizing the work in the counties so that the educational programs offered complement each other and constitute a well-unified whole, which is consistent with the needs and desires of the people. Frequently, also, there is an exchange of responsibilities as between agents in order to maximize efficiency and to provide educational help in any problem field as circumstances permit.

However, each agricultural agent and assistant on the average is responsible for serving approximately 1,000 farm families. Each home demonstra-

tion agent and assistant, in counties having such extension workers, has approximately 1,500 farm families to serve; 4-H Club agents and assistant agents giving essentially full time to youth work have comparable work loads. The families served by these agents are scattered over an average of some 1,000 square miles. In addition to farm families there are many nonfarm rural families in the average county who have a legitimate claim on extension's services. There are also numerous urban families and groups seeking counsel primarily with problems related to the home and its environment.

Under these circumstances it is apparent that the county extension workers cannot meet regularly with all local groups. They must utilize every resource available to them (1) to determine the specific areas in the total complex of problems which should receive emphasis at any given time, (2) to keep abreast of new scientific information becoming available from their college, the Department of Agriculture, and other sources and (3) to relay this information effectively to those they serve.

Program Planning

To a large extent the content of the extension program in any given State, and the methods by which it is determined, reflect the philosophy of extension held by those responsible for leadership in these particulars. For whatever the written objectives of an organization, its philosophy is shown best by its operations and by the items in its objectives upon which it places most emphasis.

Historically, extension has recognized both the propriety of, and necessity for, the cooperation of people themselves in determining problem emphasis in extension programs. However, the extent and degree to which such extension program planning has been done with farm people varies

widely as between States, counties within States, and with time.

Criticisms have been levelled at the way extension programs are determined. These may be summarized somewhat as follows:

1. The program planning process is one of form rather than substance, and receives too little time and attention for a constructive job.

2. That in many counties the extension program is based largely on the agents' analysis of needs. Also, that in some States, despite efforts to democratize the formulation of extension programs, the tendency is for the State office to formulate a program and "make them like it."

3. That in too many instances extension program planning does not take into consideration the interests and needs of various sizable groups in the county. Frequently overlooked are the lower income groups, part-time farmers, farmers living in the poorer land areas, and other such groups.

4. Regardless of the stated objectives of extension work there is a tendency, in many instances, to concentrate on programs relative to more efficient practices in agricultural production and marketing, on a commodity basis, to the exclusion of many other problems and issues of vital concern. Unconsciously, perhaps, such programs are directed to educating people as agents of production rather than as individuals. Even in connection with 4-H Club work it is charged that the 4-H's get far from equal emphasis; that prizes and awards are utilized and emphasized to such a degree that they stress the economic and prize aspects out of proportion to other aspects of the stated objectives of 4-H Club work; that attention is focused on the development of the steer, or the quality of the garment, rather than the boy or the girl.

This committee has not had the facilities to explore the accuracy of these criticisms or their justification. The fact that such criticisms are frequently made warrants their consideration.

The committee believes that the wide variance in situations facing rural people and local extension workers, and the inherent nature of extension work, warrants strong emphasis on the cooperative development of extension programs by the people to be served and the local extension agents, in a very thorough manner.

This may sometimes be done through meetings of the various local cooperating lay leaders, or through an executive committee established to counsel with the extension agents throughout the year on all extension matters. An even more thorough and productive method followed in some States and counties is that of utilizing a county planning committee, or council, which functions on a continuing basis throughout the year. Each community is represented on the committee. These committees undertake a thorough analysis of the problems of the county as they relate to agriculture and rural people. They undertake surveys to develop a body of factual information as a basis for sound local planning. They foster widespread discussion of problems requiring group action to solve. And, where such study and discussion points up problems requiring remedial measures beyond extension's educational programs, the committees assume the leadership in promoting the necessary action.

Other variations are possible but the principle should be clear. The people who are to benefit from extension work should participate democratically and effectively in determining program emphasis in light of what they believe will benefit them the most. The extension agents in this process should in no sense surrender their functions as leaders. They are still the teachers. They can and should, if necessary, present their own analysis of the needs.

This method of program planning is in accordance with the whole spirit and purpose of extension. The principle involved is fairly well recognized. The difficulty is the degree to which the principle is followed conscientiously and thoroughly and with full recognition of all the problems concerning which extension should be offering educational programs.

Specialized Assistance

From the beginning of extension work there has been a recognized need for supervisory help to assist the county extension workers effectively to meet the manifold types of problems facing them. To this end each State has a small staff of persons, variously known as district supervisors or district agents, whose functions are to assist county extension workers to organize their work effectively, both in the office and in the field. They train agents in approved teaching methods, in extension program planning procedures, in the handling of administrative problems, and other matters essential to an effectively functioning local organization.

Another very important source of help is made available through a group of State extension workers generally known as subject-matter specialists. Their main functions are to keep abreast with the latest knowledge in their fields of specialization and to serve as liaison persons between the county extension workers and the sources of new subject matter; to keep county workers advised of new scientific developments and their application to local problems; and to translate such findings into the form of effective teaching tools which the local agents may use in their educational programs. In cooperation with the supervisory staff, they perform a very valuable service through conducting organized training schools for county extension workers and local leaders.

Certain difficulties are inherent in this specialization, which are fairly typical of all specialization in human affairs. The first of these difficulties is in determining the practical limits of specialization necessary to provide an adequate supporting service of technicians to aid the county extension staffs. For the United States as a whole a fairly constant ratio of specialists to

county workers has been maintained throughout the years at slightly under 1 to 5. However, this ratio varies widely as between States, depending on such factors as types of farming involved in particular States, extension financial resources available, number of counties within a State, and the over-all policy of the State extension administration.

A significant factor has been the insistence of organized interest groups in many instances that a specialist or specialists in their particular fields of interest be added to State extension staffs. Very practical problems are involved here. But it is not believed that there is any formula which could be applied in determining a proper ratio between State specialists and county extension personnel for a particular State. The committee suggests, therefore, that the balance between State specialists and county extension worker staffs should be given careful consideration in each State.

A more significant problem in relation to specialist work is that of getting the specialized competence of these workers so brought to bear upon the problems of the people that the greatest possible educational contribution will result. The "specialist" approach to individual problems of the farm, the home, and the family has become conventional in extension work. It has experienced varying degrees of effectiveness. It may have a definite and significant place in the future. But there is reason to consider this approach with particular care in light of the current needs for an extension program of wide scope.

The farmer, for instance, has a deep interest in what he is told by the extension specialists in agronomy, horticulture, animal husbandry, farm management, and others. He wants to profit from what he hears. But the more specialists there are to serve him, the more complicated becomes the job

of fitting together their varied recommendations into a workable whole suited to his soil, his financial situation, his preferences and abilities, his family needs, his market outlets, and all other significant factors having a bearing upon the most practical course for him to follow.

There are certain aspects of extension procedures which tend to perpetuate the specialized approach. Prominent among these is the development of extension programs in terms of specific "projects" or lines of educational activity. Annual plans of work submitted by the counties historically have included projects in specific fields such as dairy-herd improvement, poultry culling, home gardening, seed improvement, food preservation, clothing, and the like. It is assumed that each of these will contribute to the basic objective of extension work. This assumption is rarely questioned and less often examined in the light of changing economic and social conditions. This situation places a premium upon each specialist securing a maximum following in the counties which will use his materials and request his technical services.

Unfortunately this procedure is reinforced by the tendency of some administrators to gage the effectiveness of individual specialists on their staffs by the demands for their services and by the number of changed practices reported each year in the various specialists' particular fields of interest.

Further, in a small but increasing number of counties with powerful and influential groups of producers of some one commodity, county specialists are being added to the staff. The county agent then becomes more of an administrator and less of an educator.

This committee would point out that farm life itself is not lived in segments or projects. It is lived as a whole. The operator faces a multitude of problems of which production is one, marketing

another, conservation of soil resources another, and so on. The end objective of solving all these problems is a better life for the farm family and the insurance of an adequate supply of agricultural products for the general public.

This committee believes that with the varied expansion of scientific knowledge, and the desirability in many areas of some diversification, the average farm family needs the help of more generalists rather than of more specialists. They need a competent interpreter and integrator of usable facts.

This situation is far from unrecognized within extension. In the years just prior to World War II a few State extension services began exploratory work to discover practical and feasible ways and means of conducting extension work in terms of total farm and home problems, rather than in terms of specialized projects. This approach was referred to as the family farm unit or balanced farming approach. Training schools for both county agents and specialists in relation to this procedure were undertaken. In these training schools a farm and home were appraised as a unit and specific plans for improvement drawn with due regard to practical conditions. Educational programs were then developed based on these experimental results.

The basic objective involved was that of combining and correlating the various types of specialized assistance available from the colleges so that they could be brought to bear, in a practical and integrated manner, on the whole of the problems of the farm and home rather than piecemeal. In more recent years this type of educational program

has been expanding. In some States individual farmers have contributed funds to extension for the employment of additional county agents to give full time to such work.

These developments give much promise for more effective extension work in the future. In relation to the work of specialists this technique serves as a strong force to integrate their efforts in terms of problems as they face the individual family unit. Even though each specialist still maintains his functions as such, the "generalist" function is more adequately performed. Evidence already available clearly indicates that through this approach farmers are being induced to adopt improved practices at a much more rapid rate than before and, at the same time, are making much more rapid progress toward the adoption of well-rounded farm and home plans.

Such evidence verifies the continuing need for a highly competent staff of specialists, but with the individual efforts of all integrated into a unified farm and home approach. But the inherent nature of specialization will require specific attention of extension administrators in order to insure attainment of the desired results.

Local Leaders

Without local volunteer leaders extension could not carry on as extensive a program as it does. In fact, as has been noted, extension's widespread use of unpaid local leaders and demonstrators is a unique contribution to the field of out-of-school education and social organization. Such leaders perform a variety of functions, both educational and organizational.

Before World War II there were over 700,000 such local leaders in various phases of the extension program. During the war, when travel was restricted, this number was increased to over 1,100,000. It is now at approximately the prewar figure. In aggre-

gate these volunteer leaders contribute millions of days of service without even receiving pay for expenses. If their time were valued at farm-labor wage rates the value of this service would almost equal the total budget of extension from all Government sources. This is a unique record among tax-supported agencies and is further evidence of the high regard of the farm and rural nonfarm people for the work extension is doing.

The past and potential significance of this voluntary service to the successful prosecution of extension work is so great that it merits the very careful consideration of all extension workers. It must be understood that to be most successful a local leader must be a recognized member of the group he or she is to serve and must have the confidence and respect of other members of the group. To the maximum degree practicable, leaders should be selected by the members of the group they are to serve. They should not be arbitrarily selected by an extension worker on the basis of evidence of a particular skill or economic position, in the mistaken belief that such are necessarily earmarks of successful leadership.

Evaluation

Extension has long recognized the need for analyzing its methods and procedures in relation to objectives being sought, in order that it might have reliable guides for future policies. A small research unit was established in the Extension Service of the Department of Agriculture in 1923. This unit, largely in cooperation with State colleges or extension services, has conducted numerous studies. They have largely been devoted to such fields as teaching methods, program planning and determination, problems in administration and supervision, and local leadership. These have been supplemented by similar studies conducted by State extension services. This re-

search, largely of a service or action nature, has been very timely and helpful. Further studies of this same general nature are needed. They should give larger consideration to conditioning social and cultural factors, but perhaps be more explicit than most of the past studies.

Furthermore, the time has come when extension needs more of the so-called "fundamental" research. Evidence is needed as to why some people participate in extension educational efforts and others do not. Without such guides, extension efforts to increase participation will be built without knowledge of some of the most important factors determining participation. Probably such research, when undertaken, should be done by State experiment stations in cooperation with their extension services or the Federal Division of Field Studies and Training.

Certain precautions in this connection seem worthy of notation. The first is that educational research is a technical field in itself requiring participation of those who understand the techniques and devices of rural adult education and what can be expected of them. But, since many types of extension research must be conducted in relation to activities bearing upon some subject-matter field, the research technicians in that subject-matter field have a definite contribution to make in planning the specifics of the research to be undertaken. Thus cooperative efforts of both groups are needed if the most productive results are to be obtained.

In the second place educational research has historically been largely preoccupied with research and evaluation within the setting of formal classroom education. Extension education is carried on in a vastly more flexible situation without the possibility of utilizing the same precise experimental controls that is possible with formal educational research. Furthermore, the people served vary widely in education, with

many of them falling into very low educational levels.⁶

It is self-evident that the usual educational methods used by the Extension Service cannot be equally effective with functional illiterates and those with high school experience or more. In several hundred counties, if extension agents are to reach the large numbers with low educational status, they must use the relatively simple but also specifically developed methods of the adult elementary educators.

The approaches to extension research, therefore, must recognize the wide variability in human characteristics which typify the extension "classes." Reasons must be found why

different strata within the total population served react differently to the methods and procedures used by extension. It is not enough to measure total participation alone.

It is considerations such as these that lead to the recommendation that, while service or action evaluation studies should be continued, more emphasis and resources should be directed in the future to undertaking some pioneer, pathfinding, and fundamental research into the social, economic, and cultural factors which effect and even condition the extension program. It is believed that such studies would yield high dividends, as the findings came to be applied, in increasing the coverage and lifting the efficiency of extension teaching to a high level.

⁶ See table 1, Appendix.

Training and Professional Status of Extension Workers

SUMMARY— Extension work today demands an educational background especially designed to fit workers for the profession. The basic philosophy should be to have extension workers as well trained as possible in broad fundamentals during their undergraduate work, and to develop them into well-qualified, technical persons by in-service training after they are employed. Extension has become of sufficient importance as a profession to justify special consideration in the land-grant college curricula. When workers are first employed induction training is essential. This should be followed throughout the workers' careers by continuous in-service training. Opportunities for in-service training should be made available on official time. Leave for graduate work should be granted on a basis comparable to that extended to resident college teachers. Extension workers should be clearly recognized as staff members of the colleges. College rank or some other comparable designation should be used for all extension workers. A system should be instituted in every State for evaluating accomplishments and making regular promotions in line with achievements.

IF extension workers are to be expected to meet today's challenges they must be well educated for their jobs in the fullest sense of the word. Curricula of the land-grant colleges cannot aim at providing specific solutions to all problems to be faced by their students in all different types of activity in which they will eventually engage. However, extension work has become of sufficient importance as a profession to warrant specific consideration by college administrators in curricula determination.

Formal education for extension workers should be such as to develop rigorous critical thinking and balance in action. Broad programs of study, without undue specialization, are best adapted to attaining these ends.

Wherever practicable, specific courses in extension education should be offered in the junior and senior years, as well as more specialized courses on a graduate basis.

In developing an educational program for the preparation of extension workers, it is well to keep in mind the following underlying principles:

1. There is no single method for attaining the varied kinds of competence needed in extension.

2. The program should be sufficiently flexible to permit both specialization and integration as needed.

3. All departments and sections of instruction will need to cooperate in working out solutions to educational problems.

4. A "task force" in education which utilizes all available resources of the institution, and cuts across departmental lines wherever necessary, is needed if students are

to be properly prepared in the field of extension teaching.

Such well integrated and pointed educational curricula have not been available to most current extension workers. However, in recent years there has been a definite trend in this direction. In the interest of extension work, extension workers, and the colleges themselves, this trend should be continued at an increasing rate.

Training History

The first county agricultural agents were products of their surroundings, rather than of specially designed college work in agriculture. They were selected on the basis of practical farm experience and evidences of good judgment and leadership. Many of these early agents, mostly mature men without degrees from agricultural colleges, were filled with enthusiasm and imagination. They built the foundation upon which later extension work was developed.

Men added later generally had formal college training as well as an agricultural background. In the earlier years, however, these men did not have an organized body of information on extension teaching techniques and procedures to guide them. They had to learn, to a large degree, by the trial-and-error method aided only by such guidance as the older agents and State office workers could give them.

The early home demonstration agents were mostly rural teachers and practical housewives who were employed during the summer months and were brought to the land-grant colleges for short periods of training for specific programs. Gradually it became possible to obtain some such workers on a full-time basis. Some of them had college degrees with a major in home economics. More recently most of the newly hired home demonstration agents are college graduates, having degrees in home economics from land-

grant college departments or schools of home economics. However, it is still necessary to hire some home demonstration agents who are graduates from other types of institutions providing only a limited amount of formal education in the home economics field.

Work with youth has been a part of the extension system almost from the time extension work from the colleges started, and even prior to the passage of the Smith-Lever Act. This work with youth was naturally assumed by county extension workers as they organized their programs. Later special youth workers, usually known as assistant agents or county 4-H Club agents, were added to some county staffs. Their training was similar to that of other county extension workers.

The first specialists were largely college professors who travelled throughout a State participating in meetings, fairs, and institutes sponsored by agricultural societies and State boards of agriculture. As cooperative extension work under the Smith-Lever Act was developed, the colleges added extension specialists to their State staffs. These workers were looked upon as authorities in their particular subject-matter fields and were chosen on that basis. It is natural, therefore, that this group has had the advantage of more formal training than any other single group of extension workers. However, this training has been more in the scientific aspects of the particular specialty fields without too much recourse to application and use in an extension educational program.

Training Objectives

The following objectives are recommended in the development of educational programs for the training of extension workers. They are broad in scope and are sufficiently general to be applicable to the education of all professional extension workers regardless of State, type of work, sex, or race.

The goal should be to prepare extension workers who:

1. Are basically grounded in the physical and social sciences of significance to life in rural America.
2. Are familiar with reliable sources of important information.
3. Understand the background, philosophy, objectives, policies, and organization of the extension system.
4. Are skillful in applying principles of psychology and education to extension teaching, supervision, and administration.
5. Can organize rural people and stimulate leadership among them.
6. Understand the processes by which rural people and extension workers cooperating can analyze local problems, arrive at potentially sound solutions, and develop a county extension program.
7. Know the problems and procedures of adult and out-of-school youth education.
8. Are skillful in organizing, interpreting, and presenting basic economic, social, technical and scientific data, and their implications in rural life.
9. Understand the techniques and processes of evaluating the effectiveness of extension programs.

Pre-Service Education

Since one of the objectives of the undergraduate program of study for prospective extension workers is to provide adequate information in subject matter, it naturally follows that first emphasis in curricula must be placed on courses in agriculture and home economics. In addition to a comprehensive knowledge of technical subject matter, the extension teacher who is to carry out an effective program must have an understanding of the scientific, economic, and social forces that affect the farm, the family, and the community. Educational preparation for such a goal begins with general courses in chemistry, biology, physics, economics, sociology, education, psychology, and the humanities. Improvement in the skill of communicating ideas should be constant, not only in courses designed for that purpose, but continuing through all courses. The social sciences should be so coordinated that the student gains an understanding of

principles that build up to a broad concept of American democracy, and the nature and influence of economic forces largely determining the material welfare of the people. The lower division science courses should be devoted to the consideration of basic concepts, the building up of an appreciation of the scientific method, development of precision of observation and measurement, and an appreciation of the interrelationship of science with all of life. Upper division science courses may be taken to give more technical training.

It would be well for the college curriculum to provide for a series of courses in extension education. The first of these courses should be offered in the junior year and should be designed to give students a clear and comprehensive view of extension. The chief purpose of this course should be to provide students with a basis upon which to decide whether or not they would like to prepare for extension work. For this reason the course should be open without prerequisites to all students who have attained junior rank.

Laboratory experience in the field, under the direction of both resident teachers and extension workers, has possibilities of becoming an important educational procedure. It should probably be offered between the junior and senior years and after completion of the first course in extension education.

Following the first course and the laboratory course, there should be a senior course to give the student as much specific education as possible for the job of an extension teacher.

Revision of advisory systems to permit assignment of students interested in extension work to members of the teaching staff who have had extension experience would be a move in the right direction. A situation that would be even more helpful to extension would make available, as advisers, members of the extension staff who have special interest in undergraduate

education and who have the time to devote to this work.

The first prerequisite to training personnel for extension employment is availability of an adequate number of interested students to train. No very serious problem is presented here from the standpoint of workers in the field of agricultural extension, although some difficulties are being experienced in obtaining an adequate number of trained men.

The situation in home economics extension is quite critical. The average tenure in office for home-economics extension workers is only about 3 years. There never have been enough home-economics graduates available for extension employment. In 1947 nearly 800 counties were without the services of home demonstration agents. Many of these positions would have been filled if qualified personnel had been available. Women students in colleges decreased 4 percent in numbers from 1939 to 1945, and students in home economics decreased more than 21 percent.

Thus it would seem that there is danger that the supply will not be sufficient for the colleges to prepare the number of persons needed in extension. It would be well for the colleges to develop plans for the active recruitment of prospective extension workers. It might be advisable to consider going as far as to provide scholarship aid for a certain number of boys and girls, with assurance that employment will be available for them if and when they satisfactorily complete requirements for their undergraduate degrees.

In-Service Training

After young people have finished college and have been employed by extension, the next step in their education should be in-service training. This begins with induction training. Induction training can and must fill gaps in the academic preparation of stu-

dents who are learning to be extension teachers. Therefore, a planned induction-training program should be universal. The fact that this training is for the immediate job ahead and is done on the job where principles and application are closely associated adds greatly to its effectiveness.

In-service training, of course, should not end with induction education. It should be a continuous process. It should be planned to meet the needs of individuals and special groups, it should give opportunities for study under supervision, and it should be intensive. It is important that extension workers have opportunities for frequent short periods of in-service training to bridge gaps in academic preparation, to serve as refresher training, and to meet changing problems and situations as they affect the job to be done.

Opportunities for such in-service training should be made available to extension personnel on official time and, if feasible, on full pay. Agents, specialists, and others should be encouraged to take advantage of them. The whole philosophy of this plan is to have the extension teacher as well trained as possible in fundamentals during his undergraduate work, and to develop him into a well-qualified, technical person by in-service training after he is employed. This may be expensive under some conditions, but it is believed to give better training than any other method.

Problems that are regional in nature may require the establishment of regional in-service training short courses. This should result in better integrated programs for the region.

Incentives for

Professional Improvement

Naturally any extension worker who is eager and ambitious to do his best in his job looks for means of improv-

ing himself. One of these means is through graduate study. Opportunities for such study should be shared in like measure by all extension workers. Likewise, leave for graduate study should be available to extension workers on a basis equivalent to that allowed the college or university teaching staff in the respective States.

In recent years many graduate schools have attempted to arrange programs adapted to the needs of extension workers. Short-term courses of from 3 to 8 weeks have been provided. However, evidence points to the conclusion that graduate work for relatively short periods is not proportionally as beneficial as the more extended periods of study. Efforts should be made to provide leave to extension workers for graduate study on a quarter or semester basis.

There is a growing tendency for graduate schools to put a definite time limitation on work for advanced degrees. This could be detrimental to the best interests of extension workers. There should be at least one land-grant college in each region with graduate regulations flexible enough to enable extension workers to get advanced degrees through useful study programs regardless of the length of time required. This opportunity would lend more encouragement to them to pursue advanced study. As with undergraduate students, it is even more necessary and desirable to have at least one staff member who is competent to advise extension workers as to their graduate-study programs.

It is important that the college administration and the general public recognize that extension workers are members of the staff of the land-grant college they represent. This is particularly important in relation to county extension workers who are located away from the college and are able to participate in campus activities at infrequent intervals. As members of the college staff, extension workers should

have the same rights and privileges as persons of comparable education and experience on the resident teaching and research staffs. Giving specific evidence of college status does much to improve the morale of extension workers and to encourage them to strive for higher professional status.

Public recognition of the fact that county extension workers are staff members of the land-grant colleges is facilitated through paying the salaries of such workers from funds of Federal and State origin. If all salaries could be paid from such funds it might tend to dispel the idea that county workers are strictly county employees, or, what is still more questionable, the employees of some farm organization, with the college merely subsidizing the effort. Paying all county-worker salaries from funds of Federal and State origin would make it easier to improve their status in regard to promotion, retirement, and other rights and privileges. This arrangement would sacrifice little in the way of local control and local responsibility, as workers unacceptable to the county authorities could be removed or rejected through agreement with the State director or, as a last resort, through the county refusing to pay operating expenses.

Another incentive of some significance is that of giving college rank (instructor, assistant professor, etc.) to county extension workers, as is practiced by a few States. Some other States have adopted a system of designations for county workers which differ from the academic titles but which imply a similar degree of attainment. It would appear to be highly desirable either to grant college rank or to adopt on a Nation-wide basis some way of designating status comparable with that of the resident college faculty.

Of much greater importance than rank is a regular system of promotion which sets up standards for evaluating the accomplishments of a worker with promotion in line with achievement.

Such a system furnishes a definite incentive to the worker. An equitable system of promotions, furthermore, will attract new people to the extension service. Several States have developed such rating devices with associated definite salary promotions that are accomplishing the desired results.

Promotion from county to State staff is another means of providing incentive and improving morale. Such a policy, coupled with a plan for advanced study, encourages agents to take advanced training to prepare themselves for more effective service.

Extension Financing

SUMMARY— Extension work has grown gradually, but consistently, throughout its history. Total funds have increased from 3.6 million dollars in 1915 to 58.5 million in 1948. In 1948 approximately 47 percent of total funds came from Federal appropriations, 29.3 percent from States appropriations, 21 percent from county appropriations and 2.7 percent from other local sources.

The percentages of extension funds used for administration and for publications have gone down gradually over the years. Those used for specialists have remained fairly constant, and those for county work have gone up slightly. Should more funds become available it would appear that in most States major emphasis should be placed on expanding county work and informational materials, including pamphlets. As of July 1, 1947, there were still 107 agricultural counties in the Nation without county agents and 772 counties without home agents. Work with youth has been receiving an increasing percentage of extension funds in recent years and now gets over one-third of the total time of all county workers.

The earmarking of funds in appropriations tends to inject harmful administrative rigidities and hence should be avoided. If extension programs are to encompass the expanding range of problems which beset farm people and meet the increasing demands for service from rural nonfarm and urban residents, it is clear that increasing funds will be needed.

THE Cooperative Extension Service derives its finances from four sources—Federal appropriations, State appropriations, county appropriations, and contributions from local nongovernmental sources. In 1948 appropriations provided 97.3 percent of total funds. The remaining 2.7 percent from local nongovernmental sources was provided largely by farm organizations. However, only 20 States reported having any nongovernmental extension funds. Only 4 of these 20 had funds from these sources in amounts equal to 5 percent or more of

their total budgets, and in 9 of them the amount available was equal to less than 1 percent of total funds available.

The total of extension funds available to the 48 States, Alaska, Hawaii, and Puerto Rico in 1948 amounted to \$58,463,459. Of this amount Federal appropriations provided 47.0 percent; State appropriations, 29.3 percent; county appropriations, 21.0 percent; other local sources, 2.7 percent.

Trends in Extension Financing

As measured by funds actually expended, cooperative extension work

expanded rapidly during the first 5 years, 1915-19. Expenditures in those years increased from 3.5 million to 14.5 million dollars. However, the rate of growth was materially accelerated during this period through special emergency appropriations. From 1919 to 1945 expenditures increased from 14.5 million dollars to 38.2 million, or an average of 6 percent per year.

This trend, however, was not consistently upward. In the depression period of the early thirties, funds from all direct sources declined from 25.5 million dollars in 1931 to 19.8 million in 1934, a reduction of over 22 percent.

This decline in funds from direct sources during the depression was offset to a considerable degree by a transfer of funds from other Department of Agriculture appropriations. These transfers were made to enable extension to assist in launching the various agricultural emergency programs. During the period from June 1933 to January 1936 a total of approximately 21 million dollars was transferred to extension for these special purposes.

Again in 1944 and 1945 the War Food Administration allotted special funds to extension to enable it to render additional services to agriculture in connection with the war emergency. Since the end of the war extension funds have increased at a more rapid rate than in any comparable period in its history. From 1945 to 1946 expenditures increased from 38.2 million dollars to 44.6 million, or 14 percent. For the fiscal year 1947, another increase of approximately 16 percent was experienced. Budgets for 1948 indicate an increase of 10 percent over 1947.

Sharing of Costs

Extension funds from intrastate sources exceeded Federal appropriations for extension work each year from 1915 to 1936. From then until 1948, Federal contributions have gen-

erally grown somewhat faster and have been somewhat larger than those from State sources. This has been due primarily to increased Federal appropriations under the Bankhead-Jones Act of 1936 and the Bankhead-Flannagan Act of 1945. However, State extension budgets for the fiscal year 1948 indicate that State funds will exceed Federal funds by three and one-half million dollars, or approximately 13 percent.⁷

Federal-State Ratio Varies from State to State

The recent approximate equal sharing in extension financing as between the Federal government and intrastate sources on a national average basis does not accurately reflect the situation in individual States. In 1945, when direct Federal and State funds were practically equal in amounts, there were three States in which the Federal contributions were less than 30 percent of total extension funds in those States. At the other extreme, there were two States in which Federal funds amounted to over 70 percent of the total extension funds.

At least three major factors contribute to this wide variation in the ratio of Federal funds to intrastate funds on a State-by-State basis. These are:

1. The formulas established in the various authorizations to govern the allocation of funds to the States.
2. Wide differences in the financial ability of the various States and counties to appropriate funds for extension work.
3. Variations in the aggressiveness with which State and local appropriating bodies support extension work.

It is also interesting to note that Federal funds going to each State have not varied with the economic cycle nearly so much as have funds from in-

⁷ Table 2, Appendix, indicates the trend in extension financing since 1915 as measured by direct funds available.

trastate sources.⁸ For example, during the depression years there were many States in which State and county funds for extension were reduced by as much as 40 or 50 and sometimes as high as 70 percent.⁹ Yet in those same years Federal funds in most of those States either remained about constant or increased slightly. Thus the consistency of Federal appropriations has been a very valuable stabilizing force in extension's history. This is particularly significant in those States with relative low tax bases, and which are predominantly agricultural. State and local funds in many of them have suffered greatly in times of adverse economic conditions.

State-Local Ratio Also Varies

When intrastate funds for extension work are analyzed, a pattern of variation somewhat similar to the Federal-State relationship is revealed. In 1945, direct State appropriations provided approximately half (47.6 percent) of all intrastate extension funds. Funds from county sources provided the remainder, or 52.4 percent. Again, there were three States where State appropriations accounted for less than 30 percent of the total intrastate extension funds and two States where State appropriations accounted for more than 80 percent.

Bases for Allocating

Direct Federal Appropriations to States

The methods of determining allotments of Federal appropriations to the various States for extension work vary with the different authorizations. Five major allocation devices are involved.

They are on the basis of: (a) Specific amounts for each State indicated in certain acts, (b) rural population, (c) farm population, (d) as determined by the Secretary of Agriculture, and (e) in the case of one fund on the basis of 1944 allocations. Allocations for the fiscal year 1948, as determined by these devices, were distributed as follows:¹⁰

	Percent of the total
(a) Specific allotments-----	9.2
(b) On basis of rural population-----	17.2
(c) On basis of farm population-----	69.8
(d) As determined by the Secretary--	1.8
(e) 1944 historical base-----	2.0

Use of Extension Funds

Extension expenditures can be roughly divided into four areas—administration, publications, specialists, and county work. Throughout the entire history of cooperative extension work, the general pattern of use of extension funds for these purposes has followed certain trends with remarkable consistency.¹¹

The trend in administrative costs has been downward. Costs of administration in the early developmental years were relatively high, as could be expected. But as the extension organization increased in size and became more firmly established, relatively less funds had to be utilized in administering the work and more could be, and were, directed to operations. From 1920, at which time the extension organization had become fairly well established, to 1946, the relative ad-

¹⁰ Table 5, Appendix, provides a breakdown of amounts of direct Federal funds available to the States in 1948 by authorization items.

¹¹ See table 6, Appendix, for use of extension funds in the States and counties for selected years.

⁸ See table 3, Appendix, for a break-down of extension funds by source for indicated years.

⁹ See table 4, Appendix.

ministrative costs have been halved. This represents the greatest percentage change of any of the four major lines of expenditure and reflects a relatively high degree of stability in the administration organization.

The proportion of extension funds used for publications has also gone down, though not so sharply or quite so consistently. It has always been a relatively small item. It started off at 2.1 percent in 1915 and is now about 1.5 percent. Part of the reduction in recent years was due to the wartime shortages of paper and controls. In view of the recognized effectiveness of printed materials in conducting extension work, it would seem that an increase in the proportion of extension funds used for this purpose would be justified.

The percentage of extension funds used for the employment of specialists operating out of the colleges and assisting county extension workers has changed the least of any of the major lines of work. Throughout most of the first 30 years of extension work the proportion of funds used for the employment of specialists fluctuated in a range of 19 to 20 percent of the total funds used. During the last few years this percentage has been reduced to about 17.5 percent as a greater effort has been made to place more of extension's facilities out in the counties. As between States the range in the percentage of funds so used is somewhat greater than in the other four lines of work. A part of this variation is explained by wide variations in types of agriculture, as between States, and by the demands for specialized help in all of the various problem fields, irrespective of the size of a State and the number of counties to be served.

For the fiscal year 1947 there was a total state specialist staff of 1,827 persons. Of these 407, or 22 percent, were on a part-time basis, the rest of their

time being given over to teaching or research work.¹²

From two-thirds to three-fourths of all extension funds have gone into county extension work. In 1915 approximately 69 percent of the total budget was so used. This proportion increased to 77.3 percent in 1946. This increasing emphasis on providing adequate facilities and services in the counties is commendable. However, the funds actually expended within the counties constituted only 68.6 percent in 1946, with 8.7 percent going for supervision of county work. It would appear that in the further development of extension work the need for expansion in the majority of the States is greatest in the counties and should have first claim on any additional funds becoming available.

County Agricultural Agent Work

The cost of "county agricultural agent work" constitutes the largest item of expenditure in most States.¹³ Nationally, despite sizeable increase in absolute costs, the percentage of the total costs represented by this item has declined from 54.4 percent in 1915 to 47.2 percent in 1946. However, in terms of numbers, county agents and assistant county agents increased from 1,068 on June 30, 1915, to 4,624 on June 30, 1946. This latter figure represents an average ratio of 1.6 county workers for each of the 2,980 counties having county extension agents in 1946. As between States, there was in that year a range of from only 3 agents for every 4 agricultural counties in one State to 3 agents and assistants for each county in another State. The type of agriculture and the density of population to be served are important considerations in connection with the

¹² Table 7, Appendix, shows how extension specialists were distributed among the major groupings in 1947.

¹³ See table 6, Appendix.

number of agents required. However, in view of the size of the total job to be done the major factor limiting the number of agents per county to date has been the amount of finances available for this work. As of July 1, 1947, there were 107 agricultural counties which did not have the services of a county agricultural agent. Many of these have such a limited agricultural industry that interest in and local financial supports of a county agent service is difficult to maintain.

County Home Demonstration Work

Rather than decreasing, as in the cost of county agent work, the *proportion* of total extension funds expended for county home demonstration work nearly trebled from 1915 to 1946.¹⁴ It increased from 9.1 percent of the total in 1915 to 24 percent in 1946. The number of counties having women agents increased in the same period from 350 to 2,301 and the number of women agents and assistants from 357 in 1915 to 3,077 in 1946. There were, however, 772 counties on July 1, 1947, that did not have the help of a home agent.

Some of the reasons for the less complete coverage of all counties with home demonstration work are an inadequate supply of college-trained personnel available for employment as home demonstration agents, a higher replacement rate required to maintain a staff of women workers, and less aggressive support for home demonstration work by local appropriating bodies in many counties. Since the passage of the Bankhead-Jones Act of 1935 the increased funds which have become available from both Federal and State sources have made it possible to add an average of approximately 150 women agents per year from that date to 1947. This trend

should be continued until each county where the maintenance of an extension office is justified, is provided the services of at least one home demonstration agent.

County 4-H Club Work

In terms of the amount of money spent directly for the employment of 4-H Club agents the rate of increase over the years has been approximately the same as that for county agent work, but somewhat less rapid than for home demonstration work. In terms of the total extension budget the proportion spent directly for the salaries and expenses of 4-H Club agents has remained fairly constant.¹⁵ However, in most counties all county workers have some responsibility for youth work. In 29 States no county workers specifically designated as 4-H Club agents are employed. In these States, full responsibility for extension work with boys and girls 4-H Clubs and other youth work rests with the county agricultural and home demonstration agents and their assistants. On July 1, 1947, there were 558 county workers designated as county 4-H Club agents. In most states county workers assigned to work primarily with 4-H Clubs are given the title of assistant extension agents.

An examination of expenditures specifically classified as "for county 4-H Club work," however does not accurately reflect the proportion of total extension time directed to work with youth.

An analysis of the time distribution of all county extension agents indicates, for example, that in 1946 over 34 percent of the total amount of time of all county extension workers was directed to work with youth, as compared with 28.5 percent in 1940.¹⁶

¹⁴ See table 6, Appendix.

¹⁵ See table 6, Appendix.

¹⁶ See footnote, table 6, Appendix.

Financing Procedures

Federal.—Federal funds for financing extension work in the states and counties are appropriated annually by the Congress as authorized by the various controlling acts. These annual appropriations are made on the basis of annual budgetary requests submitted by the Department of Agriculture, through the Bureau of the Budget, to the Congress. However, in the case of Smith-Lever funds the original enabling act provided for a permanent annual appropriation.

The request for cooperative extension funds is an integral part of the over-all Department request. It has always been the policy of the Department to request the full amounts authorized for any given year by the enabling legislation in effect. In nearly all instances these full amounts have been appropriated.

In the main these appropriations are general appropriations "for the purpose of paying the expenses of said cooperative agricultural extension work and the necessary printing and distributing of information in connection with the same," as stated in the Smith-Lever Act. The only significant exception to this is found in the Capper-Ketcham Act of 1928 wherein there is a requirement that 80 percent of the funds appropriated under this act "shall be utilized for the payment of salaries of extension agents in counties" who "shall be men and women in fair and just proportions." The legislative history of the Bankhead-Flannagan Act of 1945 also stresses maximum practical use of these funds for the employment of additional extension workers in the counties.

The general policy of the Congress not to "ear-mark" funds for specific purposes makes possible the use of such funds in line with the most urgent needs and in the manner considered most effective in each State and reduces the over-all costs of administra-

tion. Experience over the entire period of cooperative extension work gives ample evidence of the soundness of this general policy.

State.—Most of the State legislatures appropriate funds for the support of extension work biennially for the succeeding two-year period. During the early years of extension work, in many States the responsibility for preparing and supporting budgetary requests for extension funds was met by the State extension director. In more recent years, the trend has been toward including requests for extension funds as separate items in an integrated budget request for all divisions of the land-grant college—teaching, research, and extension. This is a logical procedure.

State appropriations for agricultural extension work are frequently "ear-marked," at least in part, for specific lines of work. Once an appropriation is made for a specific purpose, the tendency is to continue it on the same basis. Since the need for extension work in these specifically indicated fields may wane or become relatively less important than other needs, this practice of earmarking appropriations frequently creates administrative problems. In such instances the extension administrators within a given State have difficulty in offering as well rounded services as changing conditions warrant.

Similarly when State appropriations are made in terms of specific line projects an objectionable degree of rigidity is injected. For instance, in recent years many states have experienced difficulties in maintaining a competitive salary scale for county extension workers because State and local appropriations allowed little or no flexibility in salary payments. Some State legislatures have recently provided salary increases for State employees, including State college or university staff members, which were not granted to county extension workers. This fail-

ure to grant salary increases to county extension agents was apparently based on the assumption they were county employees.

The net results of such actions have been (1) placing the burden of upward salary adjustments for many county extension workers to a very great degree upon Federal funds, and (2) making it unusually difficult to maintain county extension staffs because of increasing opportunities for employment in other fields at higher salaries.

As a matter of equity State and local sources should bear a minimum of at least 50 percent of the cost of necessary salary adjustments. As a matter of policy every effort should be made to obtain State appropriations for extension on such a basis that general adjustments in programs and specific adjustments in items of cost may be made freely when circumstances warrant.

County.—Appropriations by county governmental bodies for the support of extension work locally is usually on an annual basis. In view of the fact that the individuals responsible for making county appropriations change frequently, a continuing task is involved in keeping such officials informed of extension's purposes and needs.

Not infrequently situations are found where the county appropriating officials are more interested in one phase of extension work than in others and therefore inclined to appropriate more adequately for a particular line of work. This has been one of the problems in maintaining home demonstration work on a par with county agent and 4-H Club work.

Reliance on county funds for any significant portion of county extension worker's salaries also creates personnel retention and replacement problems when for any reason a county's funds are diminished. Likewise, when county funds must be relied upon for salaries, there is less freedom of action in the placing of much needed ex-

tension workers in some counties with low tax revenues. Despite these and other problems relating to the maintenance of county appropriations, and requiring a considerable amount of time and effort, it is generally agreed that the advantages accruing from local participation in the financing of extension work far outweigh the disadvantages that go with it. However, persistent efforts and eternal vigilance are necessary in many counties to maintain the local contributions to the total extension budget on a level reasonably commensurate with the services being rendered and the counties' ability to aid in the financing of that service. As has been pointed out,¹⁷ many of these problems can be avoided or minimized by utilizing county funds primarily for operating expenses, supplies, clerical help, and other such costs attendant upon the maintenance of county extension offices.

Need for Additional Resources

Various sections of this report have presented significant facts relative to future requirements to adequately finance cooperative extension work. In brief, it has been pointed out that extension's educational programs must encompass a much broader field of problems in the future than they have in the past. This is recognized by extension leaders. It is also reflected in the constantly increasing demands by those extension serves.

Extension must gear itself to provide effective educational programs for rather large groups in the rural population not too effectively reached in the past. Among such groups are the increasing numbers of urban and industrial workers residing in rural areas, part-time farmers, and, in some areas, the rather large numbers of economically and educationally disadvantaged farm families. To assist some of these

¹⁷ See Chapter VIII, p. 46.

groups effectively, specially developed methods must be employed and extension agents provided who can spend full time on such work. In addition to these special groups in rural areas there are increasing demands upon extension for work in strictly urban areas. In at least the larger urban centers full-time workers will have to be provided if these demands are to be met.

Experiments during the past decade with educational programs directed to the development of individual farm and home plans, have, to date, been most productive. They indicate greater net accomplishments by farm families per unit of time spent by the extension worker so engaged than the more general type of extension work dealing with separate and rather specific farm and home problems. However, such programs require intensive effort on the part of extension workers.

The functions and responsibilities of the Extension Service within the Department are also growing. This office has not had adequate funds to perform in some particulars the services which the States have a right to expect from it, and which are essential to the most efficient operation.

In the fiscal year 1948 funds available to this office amounted to 3.4 percent of the Federal portion of Cooperative Extension Service funds and only 1.7 percent of the total cooperative extension budget. Approximately half of these amounts are required to provide for the specific administrative functions such as allocating and checking on use of funds by the States, maintaining personnel records, reviewing and approving annual plans of work, providing detailed operating services, and the like. This leaves an inadequate amount for the Extension Service of the Department to perform its leadership functions for the whole cooperative extension system and to provide the necessary liaison between the Department and its several research and service agencies and the States.

In light of the above, and other significant factors which could be listed, it is apparent that extension in the future must either so diffuse its energies as to lessen materially its total effectiveness or be provided with additional financing commensurate with the demands for its services. Extension has paid its cost many times over in its contribution to national welfare.

Trends and Outlook for Extension

SUMMARY◀◀ Some of the basic current trends that will affect extension's future job are: The substantial growth of financial assets of farm people and the need for educational assistance in wise spending; the expanding interest of rural people in the broader problems of their community, their Nation, and the world; and the continuation of technological progress. Among the effects of technological progress are: (1) A need for more knowledge of the use and maintenance of machinery, (2) an increase in the capital required for efficient farming and rural living, (3) a widening of the gap between efficient and inefficient farmers and the resulting displacement of farm labor, (4) increased production, and hence the need for greater emphasis on soil conservation and on marketing and distribution, and (5) continuous changes in the home, with new opportunities and new problems for the homemaker.

Another trend which affects extension's future is the growing field of 4-H Club work, older youth work, and home demonstration work. It should be stressed that people are agriculture's most valuable resource. Work with people as such, rather than with individual problems, must be emphasized. This is particularly significant in the very important field of youth work.

Other trends which will be important to extension in the future are: The need for rapid expansion in the field of conservation of natural resources; the need for expanding emphasis on individual farm and home planning; the decreasing number of farm families and the increasing number of rural nonfarm families; and the continued need for, and emphasis on, better rural health and rural educational services.

Extension has a broad and growing responsibility. If it is to serve fully the total national welfare, it needs an expanded staff and a better trained staff, and it should place increased emphasis on developing more efficient methods.

THE efficiency of extension's work in the future depends to a great extent upon (1) the degree of accuracy with which the changing needs, desires, and interests of people can be recognized and anticipated, and (2) the extent and

dispatch with which the tools of extension—personnel, programs, procedures—can be regeared to meet those changing needs and desires.

Essential to meeting this challenge, of course, is a recognition of past and current needs, as well as the past and

current accomplishments of extension. But extension must constantly look to the foreseeable future if it is not to have its system geared too closely to problems from which the emphasis has shifted.

Basic to an understanding of changing demands on the extension service is an evaluation of the more significant current changes affecting agriculture. Some of these changes may be resolved into rather definite trends. By ferretting out some of the more important trends it may be possible to visualize more clearly those future needs which extension should meet, and hence permit the system to lay the ground work necessary to meet them. Some of these trends and their implication for extension are discussed below. No attempt is made to present an exhaustive list, or to rank these trends according to importance.

Financial Position of Agriculture

It is widely recognized that agriculture in general is in the best financial position of several decades. This is true in spite of the fact that many farm families still fare very poorly. Not so well known are the changes in the debt and liquid-asset position of farmers. During the Second World War, farm real estate debts decreased 15 percent; liquid assets increased from about 4 billion to 19 billion dollars. This is in sharp contrast with changes during the First World War when there was a 70-percent increase in real-estate debts and only a moderate offsetting increase in liquid assets.

Many farm people now, for the first time, have sizable amounts of savings. The use they make of this money will effect their welfare for years to come. At the moment, there is no reliable basis for predicting whether these funds will be judiciously used, or whether they will be dissipated in uneconomic fashion. Theoretically, farmers, as a class, possess certain characteristics

which would indicate they will make good use of these funds. They live frugally, they have a yearning to own their land and homes, and they desire to provide well for their children. But farm people have not had an adequate opportunity to learn about the business of investing money wisely. The technical knowledge involved in knowing when to buy, what to buy, how to buy; in knowing the proper ratio of fixed assets to operating funds; and in knowing the right proportion of investment in *title to property* and in *title to money*, are not well understood. The extension service has an unprecedented opportunity to render invaluable aid to farmers by providing them with facts and counsel that will lead to wise decisions as to the use of their liquid assets, both in terms of farm operations and in terms of home and family expenditures. Extension should not underestimate this challenge.

Technological Progress

Although technological developments have been in process for many decades, they have been accelerated in recent years. Between 1940 and 1945, production per farm worker increased about 25 percent. Four factors were largely responsible for this increased production, namely, the further substitution of motor for horsepower; the rapid adoption of improved crop varieties, better cultural practices including increased use of lime and fertilizer; and favorable weather.

There is little doubt that technological progress will continue rapidly under prosperous farming conditions, more slowly if farm income is relatively low. There is still much room for more widespread use of farm machinery and equipment, and for further improvements in machines, as well as in other methods of conserving labor. Smaller tractors, especially adapted to small farming units as well as to larger farms where they can be used to do light

work, will probably find increased use. An accelerated flow of research findings will undoubtedly continue to increase the efficiency of crop and livestock production. Continued progress in land use may be anticipated, with wider adoption of conservation practices, improved crop rotations, and more intensive use of lime and fertilizer.

Education in the Use of Machinery.—The implications of rapid technological progress for extension are many. For one thing, far more educational work is needed by farmers on the comparative economic advantage of the numerous types of machinery and equipment. For example, what kinds of machinery, and how much, should a farmer acquire on a given sized farm with a certain type of farming? Many farmers are justified in making large investments in equipment, but the problem is to avoid both under-investment and over-investment. Also, it is doubtful if many farmers have had sufficient information with respect to the maintenance and operation of power machinery in which relatively large sums have been invested. With electricity being extended rapidly into rural areas, farmers are in need of much more information than they are now receiving in the ways of using electricity advantageously. Since electricity, on many farms, cannot be applied simultaneously to all of the jobs to which it is adapted, information on priority ratings of electrical uses would be helpful.

Capital Requirements.—A second major impact of technological progress is in the area of capital and credit requirements. The effect of mechanization on capital requirements is cumulative—higher degrees of mechanization result in successively larger capital requirements for operating equipment. It seems apparent that agricultural credit will become increasingly important in financing farm operations, for it is probable that capital invest-

ments per farm in assets other than machinery and equipment will also tend to increase during the years ahead.

Farmers in the future will need adequate educational assistance in obtaining credit, making proper use of it, and in meeting financial obligations as they fall due. But again it may be emphasized that sound credit extension must be contingent upon a proper balance between investment in machinery and the size and type of farming operation.

It should also be noted that with cash operating costs higher, both on the farm and in the home, fixed charges will make up a larger proportion of total costs. Under these conditions net income becomes more vulnerable to any decline in prices.

A Widening Gap Between Efficiency and Inefficiency.—Some farm families will, in a sense, be disadvantaged by expanding mechanization. The needs of those people will create a third area of problems for extension. The farm operators who have a high degree of ability and initiative will experience less difficulty than other groups during the current and prospective period of rapid technological change. Improved technology always places a premium on ability and initiative. But there will probably be a further widening in the range of farm incomes, as these farmers take advantage of rapidly developing improvements. If we continue to have rapid technological progress, uneconomic use of manpower is likely to prevail in many rural areas unless a shift to nonagricultural jobs also keeps pace. Farm families that lack the type of ability, or the capital resources, needed for successful farming will be at a growing disadvantage in the years ahead. They will be badly in need of help in making necessary adjustments, and alternative employment opportunities must be ferreted out for them.

Although history affords many instances of how mechanization has

brought distress to those who could not adjust themselves to new conditions, there is much that can be done through educational programs to soften the growing pains of rapid technological progress. Extension must recognize these facts and intensify its efforts to provide educational programs that will better enable farm families, not able to take full advantage of technological advancement, to make the most of the circumstances in which they find themselves.

Although the competitive position of the family farm will probably be strengthened, as a result of the decreasing need for hired labor, different degrees of pressure will no doubt develop on the different sizes of farms. Many operators will find pressures created toward increasing either the volume of production per unit, or the size of the farm. Before the war there were already too many small, uneconomic-sized units, and technological change tends to accentuate this problem.

Marketing.—A fourth implication of increasing technology applies to the field of marketing. If it were profitable to do so farmers could, by 1950 or 1955, produce 40 to 45 percent over 1935–39 levels. Studies have shown that if the American people are to attain the desired standards of nutrition, this higher level of production will be needed. In this connection, it is of interest to note the trend in current thinking about future national agricultural policy. It is generally believed that this policy should be based upon a program of abundance, with greater emphasis on ways of sustaining an enlarging demand.

The possible increase in farm production points up the need for either developing further market outlets or adjusting production to changes in market demand. It also points to the need for a careful analysis of our marketing system and the development of greater efficiency in that field wherever

possible. There have been significant, technical developments in the marketing and distribution fields in recent years. Improved refrigeration in transport, the phenomenal expansion in the quick-freezing of certain perishable farm products, an increase in the proportion of food products that are processed and prepackaged to fit consumer needs, and a rapid expansion in the volume of foods sold through self-service stores are only a few of the many examples.

The distribution system is still burdened with some very inefficient wholesale markets. Further developments in mechanical refrigeration of railroad cars and trucks appear probable. Advancements in farm or local storage facilities, to make possible a more even flow of particular commodities to market, are needed. Some further economies may be made in retailing through prepackaging and the use of packaged frozen food where appropriate, and through consumer-education programs that will aid in moving seasonal supply commodities through the markets with greater efficiency. To the extent that such increased efficiencies can be brought about they will contribute to the welfare of both farmer and consumer.

More factual information soon will be forthcoming from the present expansion of research in the field of marketing. This will provide a sound basis for an enlarged program of extension work with farmers, handlers, processors, and merchandizers of farm products. Extension will need to continue its program of outlook as well as programs on grading, quality improvement, handling, storage, packaging, market demands and outlets, and related fields. Much can be done in providing farmers with more factual information in these important fields. Extension efforts should, however, be confined to the educational phases of marketing, and the urge to render direct services in the operation and

management of marketing facilities should be guarded against.

Effect on Homes.—A fifth, and one of the most important effects of continuing technological development is represented by the changes taking place in the home. Prominent among these is the rapidly expanding availability of electricity to farm and rural areas. This has made possible the use of many modern labor-saving devices in the home and the elimination of much time and energy consuming work on the part of the housewife. It has made possible better lights, running water, electric washing machines, modern radios, food refrigeration and storage facilities, and, in general, more satisfying home conditions.

At the same time this development creates problems with which help is needed. Among these are problems pertaining to the obtaining of adequate and safe installation of wiring, the selection of electrical equipment on the basis of both economy and suitability, and the care and use of such equipment. The lag between the availability of electricity and the installation of water systems in homes indicates a need for education in this area. These are new problems to many present and prospective users of electrical energy. Their significance justifies more specific extension educational programs in relation thereto than have been available in most States in the past.

Other technological developments have exerted a strong influence on both home and community life. In addition to the influences of electricity and telephones, there are the influences of good roads and automobiles. These have broadened community horizons. As a result of these forces rural social and cultural activities have tended increasingly to be located in the village or town centers of the modern rural community. This has increased the interdependency of the rural farm and non-farm people and better integrated our rural communities. It is this, too, which

has brought demands upon extension for rural nonfarm service.

Broadened Fields of Interest

One of the clearly discernible trends of recent years of particular significance to extension is the rapidly expanding interest of the American public in the social, economic, and political forces having a bearing upon its future welfare. Expansion of interest in these directions is not strange or new. But the rate of development and intensity of this interest is new and can correctly be attributed to the recent wartime and postwar developments.

No longer are foreign lands distant. Recent scientific developments to a large degree have removed distances in a very realistic sense. No longer are foreign lands strange—too many American youth have brought back from their war-service experiences a firsthand knowledge of conditions in these lands. No longer are problems of international relationships and international good will something unrealistic to the average household to be left solely to the consideration and attention of a few governmental representatives. These are becoming matters of concern to the average American as he appreciates more clearly than ever before the fact that they have a definite bearing upon the future welfare of this country and his own and his family's welfare. They are now matters of immediate and personal concern. In the minds of many the question of how to insure that their sons and grandsons will not be involved in another war is more vivid and pressing than many more detailed and immediate problems of the farm and the home.

Among farm people there is a growing appreciation of the fact that as agriculture moves further and further from a self-sufficient basis, it becomes more and more dependent upon conditions in the rest of our economy, and those in the outside world. Agriculture

will be increasingly affected by political decisions and actions abroad, by developments in the fields of industry and labor, and by the actions of the Congress.

It is recognized that most of these questions fall outside the fields in which extension has conventionally conducted educational programs, at least in a very intensive way. The evidence relative to many of them is conflicting, and definite conclusions are subject to controversy. The press and radio have made some contribution in this area. The need which extension must meet is primarily that of providing basic background information, pointing out why given economic problems have arisen, and what the alternative solutions might be. It is not extension's function to provide pat answers or solutions. That is the prerogative of the people themselves.

Agriculture's Basic Resource

The people are agriculture's basic resource. Work with people as such, as contrasted with individual problems, must get increasing emphasis. Assisting farm people in the strictly economic aspects of life will always require a large amount of attention. But increasing income is merely a means to better living. The necessity for helping people learn how to develop themselves and how to enjoy living are fields which cannot be overlooked.

What is the trend in this broad area? Are farm people far behind urban people in their appreciation of those values which aid in maximizing satisfaction in life? Admittedly there is room for dissenting opinion, but it is difficult to visualize any major differences in adult farm and city people in this respect. Improved means of transportation, the press, and radio cannot be underestimated as important means of removing farm people from physical and mental isolation. It seems safe to say that there is an im-

portant upward trend under way in the social and cultural development of farm people—a trend which possibly is easier to underestimate than to overestimate. This, too, is a field in which extension has a growing responsibility.

The Home is the Focal Point.—The home holds a unique responsibility for transferring our pattern of culture to the citizens of tomorrow. It is in the home that children gain their first concept of democracy and it is there that they are inspired to greater knowledge and accomplishment. By strengthening its program of education for homemakers, the extension service can contribute significantly to a more responsible citizenry in the future.

Many of the problems homemakers are bringing to the extension service center around the home and the family. They are asking for help in improving living conditions, in developing homes and housing conveniences better suited to the needs of their families, in making or selecting the most suitable clothing, and in providing nutritionally adequate food for their families. There are also increasing demands for assistance with such matters as family financial planning, including provision for adequate health protection and education for children, developing a better understanding of the problems of growing youth, and promoting the most congenial family relationships.

While there will always be a heavy demand for help on individual family problems, rural women are gaining a broader concept of their responsibilities as citizens. They are increasingly concerned about community health problems, schools, libraries, recreational facilities, and other phases of community welfare. The leadership of rural women, developed through participation in extension work, is a valuable asset to rural communities in their efforts to improve their standards of living and opportunities for the development of their youth.

Four-H Club Work.—"Learning by doing" has characterized extension educational programs for rural youth from the beginning. Known first as boys' and girls' club work, and later as 4-H Club work, this program for boys and girls 10 to 21 years of age has caught the imagination of the American people. It has the wholehearted support of business and civic groups, press and radio, and the general public, as well as local, State, and national legislative bodies.

The 4-H program has grown from an annual enrollment of approximately 400,000 members 20 years ago to the present annual enrollment of 1,800,000. But it is still far from the goal of reaching all the rural youth that needs the experience to be gained through 4-H work.

The realization that science can be put to work and applied even in small project units has served to raise the status of farming as a worthy occupation in the minds of millions of rural young people. The accomplishments of 4-H members in producing food and fiber during World War II is a real tribute to the training program of the 4-H Clubs.

At one time the 4-H program consisted largely of efficient farming and homemaking. Now, among other things which have been added to enrich and round out the program are recreation and rural arts, health, camping, soil and wildlife conservation, and whatever it takes to meet the issues of the time.

The values emanating from the 4-H program go far beyond the important tangible benefits resulting from agricultural and home economic projects. 4-H Club members are building character and acquiring ideals which buttress the real foundation of our democracy—the American family. 4-H training is an antidote to such national sore spots as crime and juvenile delinquency, which cost the Nation billions of dollars annually.

Not to be overlooked is the influence these members have exerted in getting parents and neighbors to adopt better practices. Much credit should go to 4-H for popularizing the entire extension program. The 4-H alumni are increasingly responsible for the growing demands made on the extension service. Also, it is those alumni who constitute the nucleus for an increasing enrollment in agriculture and home economics at land-grant colleges.

A problem of major concern today is the large number of farm families not being reached by the extension service. 4-H Club work continues to be an effective means of arousing the interest of such families and spreading the influence of extension work among all adult farm people.

To fulfill the needs of American rural youth, and to build a stronger over-all extension program, administrators should continue to strengthen and extend 4-H work. The record of enrollments is good, but not nearly as good as it should be. As the demand arises, and the capacity of the extension service permits, provision should be made for extending more 4-H work into rural nonfarm areas. The 4-H program and techniques should be improved in order to hold all members for a longer period of time, to challenge the interest of older members, and to assure a higher percentage of project completions. Recognizing that in the past only about 50 percent of the farm youth have remained on the farm, greater attention might well be given to enlarging the 4-H program to meet the needs of young people who may migrate into towns and cities.

Older Youth Work.—A very significant development of recent years is the organized extension program for older youth or young adults. This program is directed to young men and women whose interests and needs have matured beyond the types of programs usually associated with 4-H Club work, but who have not yet been effec-

tively absorbed into adult extension work. This is a strategically important group in rural society deserving the same proportionate time and effort on the part of extension as 4-H Club members and adults. The forward-looking programs for this age group now being conducted in a few States need to be developed further and similar programs organized in the other States.

These young people are just getting started in life; they are choosing mates, determining occupations, and building homes. They are making decisions of lifetime significance. Unfortunately, extension experience in conducting organized educational programs for this group is rather limited, and relatively few tested principles have been developed. More intensive work needs to be done toward defining an effective organization and the area of most progressive program activities, and toward effecting an energetic harnessing of the talents of this group.

Conservation of Natural Resources

Another significant trend which has long been important to extension is this Nation's continuing abuse of its natural resources. Out of approximately 450,000,000 acres of cropland in the United States it is estimated that about 11 percent have been essentially ruined and another 11 percent so badly damaged as to be marginal for crop production. Another 22 percent has lost about half the original topsoil and an additional 22 percent is losing topsoil rapidly. Such losses cannot be permitted to continue.

A wide-scale recognition and appreciation of the problems of natural resources conservation did not really materialize until the 1930's. Not until that time was it recognized that group action was necessary to meet the problem. In view of the fact that this country has never had a system of soil and for-

est management which would maintain a permanently high level of productivity, it is significant that an appreciation of the problem is reaching the point where it begins to match the magnitude of the job.

The future trend in this field will be toward a development of means capable of doing the job. It is here that education must play a dominant role. Despite the increased appreciation of the problem of soil losses and the rapidly growing contribution of science in developing practical and effective methods of conserving the land, a lack of basic knowledge and appreciation of these things still constitutes the greatest obstacle to more substantial progress. The extension service must give more attention to this problem, for the maintenance of the natural resources of agriculture is basic to the future well-being of both rural and urban people.

Individual Farm and Home Planning

Good land use is a necessity in a successful individual farm program; in fact, it is the starting point in individual farm and home planning. The individual farmer, if he is to be successful, must plan his farming operations in terms of the land he has to operate and in the light of his financial resources, family needs, and other factors. The farm and the home must be considered as a unit to obtain the most productive and satisfying results. With the growing complexity of the forces that have a bearing on the success of the extension program, this job is becoming more and more difficult.

In the past a considerable part of the research results made available to the farm family through extension education programs has been on a piecemeal basis. It was left to the farmer's ingenuity and initiative to integrate them into a balanced program for his farm. Probably many farmers could

have done this job 20, or even 10, years ago. But today the facts available to the farm family are many times greater than a few years ago. Also, improved technology involves larger capital investment. The result is that the farmer bogs down in integrating and synthesizing all of the available information into well-balanced farm management. He is uncertain and confused as to what things to do first. He is unable to do everything at once as he must make a living as he goes.

If extension is to be of maximum help to a farmer in surveying all of the available information, using those findings which pertain to his situation, and integrating them into a long-term plan for his farm and farm home, extended individual contacts are required. No two farms are exactly alike. The job cannot be done solely with mass teaching methods.

In terms of the present personnel and methods of the extension service, individual farm and home planning is a huge undertaking. In fact, because of the magnitude of the job, many leaders seriously question the wisdom of undertaking it. Nevertheless, extension should consider as a challenge the finding of ways to meet this increasing need. This challenge is generally recognized. As previously indicated, various methods are now being tested to determine the most economical and productive approach to this problem. These procedures vary from quite intensive programs wherein individual participating farmers pay a portion of the cost, to more extensive programs wherein groups of farmers are given training in applying the necessary planning techniques. Both procedures are producing very promising results. But experience to date does not provide a final answer as to the one best procedure to be followed.

If extension can develop the technique for providing the vast amount of educational assistance that is needed, lasting benefits to farm people will be

assured. Since it embraces all phases of farming and farm life, all agencies in the field working with farmers can make a contribution, and extension should take the leadership in getting all interests to cooperate closely in the solution of the problem.

Problems of the Whole Community

Some mention has already been made of the obligation of extension to the increasing number of rural nonfarm residents. The portion of rural residents who are actually farmers is decreasing, and this trend is likely to continue. Although the rural nonfarm group includes many suburbanites and persons in rural industrial centers, the bulk of this group lives in country towns that are in effect service stations for the farm population. The well-being of these people, their businesses and social institutions, is intimately interwoven with that of the nearby farm families. Already extension is giving some educational service to this rural nonfarm population and more is being requested. The committee holds that this is a logical development and an area of service that must be expanded.

Particularly is this true in the field of older rural youth. The sons and daughters of farmers and villagers attend the same high school, share in the same extracurricular and social activities. To them the rural community is a town- or village-centered community. To cut off the extension program at the boundaries of these small municipalities is to fly in the face of sociological reality and can only undermine the potential contribution of extension.

Rural Health.—Many of the problems of farm people are also shared by their nonfarm neighbors and the residents of nearby towns and villages. One of those common problems is health facilities.

Not only were rural health facilities at a low ebb before the war, but they

have also undergone substantial deterioration since the war began. Many doctors, dentists, and nurses have not returned to rural areas since the war. There are hundreds of counties with a ratio of 1 physician to 3,000 or more persons. As a yardstick, authorities during the war established a ratio of 1 doctor per 1,500 people as one which would provide bare, minimum requirements. Before the war there was an average of 1.5 general-hospital beds per 1,000 people in rural communities. A recognized yardstick for reasonably adequate service is 4 beds per 1,000 population. Sanitary facilities at too many farm homes have been correspondingly inadequate, and their improvement has progressed at all too slow a rate. In the past most plans for improvement of rural health facilities have been delayed, largely because opinion failed to crystallize regarding the limits within which government action should take place. No drastic plans for improving the situation appears likely for the near future, although an increasing appreciation of the problem among both farmers and medical men is encouraging.

With respect to sanitation and nutrition, a positive program is needed by farm people and rural nonfarm residents alike. It would seem that this is a particularly appropriate area for increased extension efforts to aid rural nonfarm people. Their problems of sanitation and nutrition are similar in many respects to those of farm people, and hence should lend themselves to the same general type of approach.

With the current trend toward a program of abundance, increasing emphasis should be given to higher nutritional levels. The educational aspects of nutrition are extension's responsibility; it should stress this project, not only among farm people, but also among rural nonfarm and urban residents to the extent that its resources permit. Although much more research is needed, extension has a wealth of

authoritative information upon which it can draw. Much can be done to offset the dietary effects of low income by further education on proper food preservation and essential nutrient requirements.

Securing, maintaining, and effectively utilizing health services and facilities are major problems facing rural people. Extension has a responsibility to help rural people obtain the facts regarding these problems and ways in which they may be met. It should become increasingly alert to this responsibility and should render the educational assistance necessary to make informed group action possible wherever needed.

Education.—Another problem that all rural people share in common is that of providing adequate schools.

Rural teachers, schools, and equipment have long been inadequate, compared with urban standards. During the war period the movement of many of the better teachers into city teaching and other positions increased this disparity. On the average, rural children attend school about 8 percent fewer days than urban children, rural teachers are paid about one-half as much as urban teachers, and school property per pupil in rural areas has less than one-half the value of urban school property.

It is disquieting to realize that rural children are educationally more disadvantaged in comparison to urban children than they were in 1900. Then less than a year measured the difference between urban and rural in the average number of years of schooling received. By 1940 the gap widened to more than 3 years.

Although consolidation of rural schools was slow during the war years, there probably will be further advancements in this movement. It will be some time before the detrimental effects of the war on rural education can be corrected. There is a shortage everywhere of well-qualified teachers at

elementary and secondary school levels, and even though salary scales for rural teachers are being increased, the recruitment of teachers capable of effecting a general upgrading of standards in rural schools will be slow. The seriousness of the situation calls for redoubled efforts to bring about improvement as rapidly as possible.

The stake of extension in good education, country and even city, is clear. With the increasing complexity of our interwoven life and the increasing application of science to agriculture, anything less than educational parity between country and city is completely unjustified. The rearing of children, many of whom will live in the cities, and the production of food and fiber adequate for the Nation's needs, clearly show the validity of this assertion. Until such equality is achieved, extension, as an educational agency, will have to deal with a population group which, in comparison with the city population, will be disadvantaged in terms of the amount and quality of formal education they will receive.

An Appraisal of Extension Resources for Meeting Major Needs

The existing extension system is a far-flung organization of some 11,000 workers covering all levels of responsibility, including administration, supervision, program content, and county operations. For an agency that is 34 years old, it still shows surprising adaptability; it has been found readily adaptable to any rapidly developing need it has been asked to meet.

That more workers will be required to enable extension to meet the demands for educational programs in new areas of work is apparent. It is equally apparent that with these demands coming from a better-informed and more highly skilled people, too much emphasis can hardly be laid on

developing high quality in all extension workers.

The emphasis which needs to be placed on various methods of strengthening the county staff will necessarily vary from State to State, and county to county, but on the whole, county personnel are generally underpaid, and are not accorded adequate opportunities for taking advantage of training-in-service programs, nor accorded sabbatical leave privileges for graduate study. However, commendable progress is being made. The committee urges a thoroughgoing attack on these problems in all States.

One problem worthy of particular attention is that of developing and maintaining an adequate county home-demonstration agent staff. As of July 1947 there were 772 counties that did not have home demonstration agents. In view of the importance of such workers in providing a well-balanced educational program encompassing the whole field of problems facing rural families, special efforts would appear to be both advisable and necessary to insure that such workers are available in all counties where extension offices are maintained.

There is much that can be done toward guiding undergraduate students toward extension service careers. This obviously will be easier after salaries have been raised to the point where an extension job can be more generally viewed as a career, rather than a stepping stone. There is increasing evidence that the academic curriculum for prospective extension workers should include more work in the fields of sociology, applied psychology, and human relations. At the same time these workers must be competent in the technical fields of agriculture and home economics. But there is a limit to the amount of course work which can be included in the normal 4-year college course. While some adjustments can probably be made in cur-

rent college curricula, it may be that these needs can be met effectively only through building toward a requirement of 5 years of formal training. Past studies have indicated that mediocre extension workers have a command of technical information about equal to or greater than that possessed by the most successful workers. But the latter are much more adept in understanding people, and in effectively influencing their thoughts and actions.

Ranking in importance second only to more and better-trained personnel is the need for more adequate means of evaluating the performance of extension. Only by further researches in extension methods can reliable appraisals be made of extension teaching and extension programs. As new demands are made of extension, it should be recognized that there is an alternative to hiring greater numbers of extension workers. Through the use of research, more accurate determinations can be made as to when a given project has reached or passed its point of diminishing value. Also, research can contribute to appraisal of various techniques for doing the same job. It is encouraging to note that progress is being made in scientifically approaching this task of measuring results. The need is simply for more work along these lines.

One aspect of increasing the efficiency of extension workers, and which calls for special mention, is the further development and use of volunteer leaders. Every study pertaining to this subject has shown that potential leadership prevails in every community. It simply must be uncovered and trained. A greater use of volunteer leaders in both youth and adult projects is worthy of more emphasis in the extension program.

More attention should be directed to the most effective means of meeting 4-H needs. 4-H accomplishments in the earlier years resulted largely from part-time effort of the county

extension agents. In more recent years, as the total extension staff increased, it has been possible for county extension workers to give proportionally more time to 4-H Club work. This has been possible because of the addition to the county staffs of full-time 4-H Club agents and assistant extension agents giving essentially full time to 4-H Club work. A continuation of this trend is needed.

Also needed is the creation of employment circumstances which will encourage 4-H workers to aim at a lifetime career in this work, rather than to consider it a stepping stone to other employment. This will require a level of salaries commensurate with those of other county extension workers, adequate provision for preservice and in-service training, as well as opportunity for postgraduate study, and the same professional recognition on the extension staff as accorded other county extension workers.

Conclusion

The present need for extension education among farm people is apparently far ahead of the capacity of extension to meet it. But this is a great stimulus to the productive efforts of any organization. It calls for a careful sifting of demands, and effective allocation of time and effort. It is a strong force in the direction of growth and progressively greater accomplishments. There is great need now, as there will be in the future, for the extension type of informal, continuing educational program. Extension has pioneered in this movement; it should be given the resources to continue to serve rural people with increasing effectiveness in the years ahead.

In recent years it has been necessary for the extension service to devote much of its time to programs of an emergency nature. The manner in which these programs have been handled does credit to extension and

its ready adaptability to meet various rural demands. But with the mounting need for, and the national importance of, educational programs extension's goal should be to maximize efforts on education and to guard against the tendency of becoming largely an emergency or administrative agency. At the same time it must be recognized that extension will and should continue to be a flexible organization closely associated with rural people. It is an adaptable organization and must continue to be such. Notwithstanding all of the careful planning for the future, it will continue to deal with emergency situations whenever necessary. It must have the hardihood and mobility to meet emergencies successfully, but more importantly, the vision and courage to adhere to sound educational processes.

To assure maximum progress on programs of a continuing nature, extension should concentrate on the development of a far greater degree of local thinking and planning. The extension worker is primarily a teacher; the development of local thinking and planning is a problem of how best to arouse the interest of people to seek

essential knowledge to be put into practice through their own initiative. The search must be intensified for more effective ways of stimulating the urges of rural people to seek and find solutions to their problems, rather than ways of handing them measured doses of information to satisfy immediate demands. When this search has been successfully completed, rural people of their own volition will seek the "why" of things, rather than just the "what" and "how."

The Cooperative Extension Service can look with pardonable pride at past accomplishments. Not only rural people, but also Congress and State legislatures through increased appropriations, have given continuing votes of confidence. It is the firm conviction of this committee that extension can look to the future and see a growing need for its services; and equally, that from these services the Nation will profit. This outlook should be viewed as a challenging opportunity to extend the influence of its work and make a continually greater contribution to the welfare of both rural and urban people.

APPENDIX

TABLE 1.—*Median number of years of school completed by the adult farm population of the United States, 1940*

Region	Number of States	High county	Low county	Average difference for region	Maximum difference within any State
Northeast	9	9.5	7.3	1.1	1.6
South	16	11.7	1.0	3.9	9.6
Midwest	12	8.9	5.0	1.5	2.7
Far West	11	10.3	.7	3.5	7.8

TABLE 2.—*Total allocations for cooperative extension work in the States, Alaska, Hawaii, and Puerto Rico, and percentage of funds derived from indicated sources, for specified years.*

Fiscal year	Total allocations	Federal	State	County	Other ¹	Total
	<i>1,000 dollars</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1915	3,597	41.3	29.0	21.7	8.0	100.0
1920	14,658	40.2	35.6	19.6	4.6	100.0
1925	19,250	35.6	37.5	20.0	6.9	100.0
1930	23,804	36.9	28.8	29.6	4.7	100.0
1935	20,042	44.8	25.0	26.0	4.2	100.0
1940	32,764	56.7	19.3	20.6	3.4	100.0
1945	37,836	50.2	23.7	22.9	3.2	100.0
1948	58,463	47.0	29.3	21.0	2.7	100.0

¹ Funds from nongovernmental sources, largely local contributions from farm organizations.

TABLE 3.—*Cooperative extension funds by sources for indicated years, 1915 to 1948* ¹

Year	Total	Federal	State	County	Other
	<i>1,000 dollars</i>	<i>1,000 dollars</i>	<i>1,000 dollars</i>	<i>1,000 dollars</i>	<i>1,000 dollars</i>
1915	3,597	1,486	1,044	780	287
1920	14,658	5,891	5,229	2,866	672
1925	19,250	6,862	7,204	3,858	1,326
1930	23,728	8,745	6,842	7,036	1,105
1935	19,794	8,858	4,939	5,152	845
1940	32,255	18,273	6,229	6,666	1,087
1945	37,063	18,597	8,785	8,480	1,201
1948	57,205	26,895	16,478	12,268	1,564

¹ To provide greater comparability Alaska, Hawaii, and Puerto Rico, which have no county funds, are not included.

TABLE 4.—*Average percentage change in amount of extension funds available to selected States, by sources of funds, 1930 to 1935*¹

States	Change in—		
	Federal funds	State funds	All county funds
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
2 adjacent northern plain.....	—1.5	—70	—60
2 adjacent southeastern.....	+3.6	—26	—44
2 adjacent midwestern.....	+1.7	—34	—23
2 adjacent northeastern.....	+4.3	+1	—11
48-State average.....	+1.3	—28	—26

¹ Changes in Federal funds available to specific States due largely to changes in allotment bases following 1930 census and, in one instance, inability of State to meet matching requirements.

TABLE 5.—Federal extension funds appropriated for allocation to States, Alaska, Hawaii, and Puerto Rico, including offset requirements and basis for allocation—fiscal year 1948

Item	Total amount	Requiring offset		Not requiring offset	
		Amount	Basis for allocation	Amount	Basis for allocation
Permanent annual appropriation—Smith-Lever Act.	\$4,704,710	\$4,204,710	Rural population.....	\$500,000	\$10,000 to each State, Hawaii, and Puerto Rico.
Capper-Ketcham Act.....	1,480,000	500,000	.....do.....	980,000	\$20,000 to each State and Hawaii.
Bankhead-Jones Act.....	12,000,000	.....	.....	{ 11,020,000	Farm population.
Bankhead-Jones extension to Puerto Rico.	274,000	.....	.....	{ 980,000	\$20,000 to each State and Hawaii.
Bankhead-Flannagan Act.....	8,330,000	{ 7,830,000	Farm population.....	{ 20,000	Lump sum.
Additional extension work.....	555,000	{ 500,000	Determined by Secretary of Agriculture ²	{ 254,000	Farm population. ¹
Alaska Acts.....	23,950	.....	Rural population.....	555,000	As allocated in 1944.
Total direct Federal allocations.	3 27,367,660	3 13,038,660	.....	20,000	Lump sum.
Percent.....	100.0	47.6	.....	14,329,000	
			.....	52.4	

¹ \$388,000 authorized as Puerto Rico's proportional share on basis of farm population but only \$254,000 of this was appropriated for 1948.² To meet special needs.³ In addition \$89,103 was allocated to the States from Clark-McNary and Norris-Doxey funds for educational work in farm forestry.

TABLE 6.—*Use of extension funds in the States and counties, by selected years.*

Year	Admin- istra- tion	Publica- tions	Special- ists	All county work	County agent work	Home demon- stration work	4-H Club work ¹	Miscel- laneous
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1915.....	8.4	2.1	20.7	68.8	54.4	9.3	5.3	.....
1920.....	6.8	2.1	17.9	73.2	52.3	14.9	6.0	.....
1925.....	5.9	2.0	19.7	72.4	51.4	15.5	5.5	.....
1930.....	4.0	1.3	19.2	75.1	48.8	19.7	6.6	0.4
1935.....	4.5	1.5	20.2	73.2	46.4	19.9	6.9	0.6
1940.....	4.1	1.6	19.5	74.8	48.4	20.3	6.1	.....
1945.....	3.7	1.5	17.7	76.8	48.0	23.0	5.8	0.3
1946.....	3.4	1.4	17.8	77.3	47.2	24.0	6.1	0.1

¹ Refers only to work conducted by extension personnel carrying the specific title of 4-H Club agents. Data available since 1940, recording the amount of time directed to youth work in the counties by all county workers, shows the following percentages for the indicated years: 1940—28.5 percent; 1945—31.4 percent; 1946—34.2 percent.

TABLE 7.—*Distribution of state specialists by major groups, 1947*

Type of specialist	Number	Percent
Specialists in problems of the home.....	274	15.0
Specialists in production and conservation.....	1,039	56.9
Specialists in agricultural economics, farm management and market- ing.....	252	13.8
Specialists in rural organization, sociology, recreation, etc.....	43	2.4
Specialists in information and visual instruction.....	184	10.0
Other.....	35	1.9
Total.....	1,827	100



